
WISCONSIN CANCER INCIDENCE AND MORTALITY

1999

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Division of Health Care Financing
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Foreword

Wisconsin Cancer Incidence and Mortality, 1999 presents summary information about Wisconsin cancer incidence (new cancer cases) and mortality (deaths due to cancer) that occurred in 1999. The Wisconsin Cancer Reporting System (WCRS), part of the Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services, collects reports of all newly diagnosed Wisconsin resident cancer cases from hospitals, clinics and physician offices. This report would not be possible without the conscientious reporting of these sources.

Since 1976, WCRS has collected cancer incidence data on Wisconsin residents as mandated by section 255.04, Wisconsin Statutes. All invasive and noninvasive malignant tumors, except basal and squamous cell carcinomas of the skin, are reportable to WCRS. Starting in 1994, WCRS entered into a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC) and became part of the National Program of Cancer Registries (NPCR).

An important change in the 1999 report is that cancer rates were calculated using the U.S. Census Bureau's Year 2000 population standard. As mandated by CDC, beginning with 1999 cancer incidence and mortality data, all rates were age-adjusted to this population. Compared to the rates adjusted using the previous standard (1970 U.S. standard million population), cancer rates *appear* higher for most types of cancer due to changes in the age distribution of the U.S. population between 1970 and 2000. In actuality, the number of 1999 cancer deaths, for example, has decreased from earlier years. Implications of the new population standard for Wisconsin cancer rates are discussed on page 6. The Year 2000 population standard and its impact on Wisconsin cancer rates are discussed in greater detail in the Technical Notes on page 52.

This report emphasizes invasive cancer data. Supplemental tables provide incidence data for those readers interested in the total number of cases (including noninvasive cancers).

Wisconsin Cancer Incidence and Mortality, 1999 was produced by the Department of Health and Family Services. WCRS staff collected, edited and compiled the data used in this report. Mary Foote and Laura Stephenson prepared the text. Laura Stephenson produced the tables and graphs. The report was edited by Patricia Nametz, reviewed by Peter Rumm, MD, Division of Public Health, and Patrick Remington, MD, University of Wisconsin Comprehensive Cancer Center, and prepared under the supervision of Judith Nugent, Person-Level Data and Analysis Section Chief. Overall direction was provided by Sandra Breitborde, Director, Bureau of Health Information.

This publication, as well as information about WCRS operations and other annual and special reports, is available at the Department's Web site (see address below). Requests for additional cancer incidence data may be addressed to:

Cancer Reporting System, Bureau of Health Information
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(608) 266-8926
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Key Findings

Demographic characteristics of invasive cancer incidence

- There were 23,920 newly diagnosed cancer cases in 1999 among Wisconsin residents, compared with 23,537 in 1998.
- In 1999, 60 percent of the reported cancers were diagnosed in people age 65 or older.
- In 1999, the most frequently reported cancers for Wisconsin women were breast (33%), colorectal (13%), and lung (11%). For Wisconsin men, the most frequently diagnosed cancers were prostate (30%), lung (15%), and colorectal (13%).
- The overall age-adjusted cancer incidence rate for Wisconsin residents in 1999 was 438 per 100,000 population. For males, the 1999 cancer incidence rate was 515 per 100,000 population. The cancer incidence rate for females was 385 per 100,000 female population. (These rates are age-adjusted to the Year 2000 U.S. standard population.)

Tumor characteristics

- In 1999, over one-half (53%) of reported cancers were diagnosed at an early stage (cases diagnosed at *in situ* or localized stage of disease). This was similar to the 54 percent of cases diagnosed “early” in 1998.
- Eighty-three percent of cervical cancers, 81 percent of bladder cancers, 80 percent of prostate cancers and 70 percent of breast cancers were detected at an early stage (*in situ* or local). By contrast, only 22 percent of lung cancers and 14 percent of pancreatic cancers were detected at an early stage.

Cancer mortality

- There were 10,731 cancer deaths in Wisconsin in 1999, slightly fewer than the 10,863 cancer deaths in 1998.
- The overall age-adjusted cancer mortality rate for Wisconsin residents in 1999 was 192 deaths per 100,000 population. For Wisconsin males, the cancer mortality rate was 243 per 100,000 population. The cancer mortality rate for Wisconsin females was 158 per 100,000 population. (These rates are age-adjusted to the Year 2000 U.S. standard population.)

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- Lung cancer continues to be the leading cause of cancer mortality for Wisconsin men and women (2,642 Wisconsin resident deaths in 1999). Lung cancer was listed as the underlying cause of death for 27 percent of male cancer deaths and 22 percent of female cancer deaths. While the percent of lung cancer deaths has decreased for men (down from 29 percent of all cancers in 1998), it has remained constant for women.
 - In 1999, the three highest cancer mortality rates for Wisconsin women were lung (35 per 100,000 population), breast (26 per 100,000), and colorectal (17 per 100,000). The highest cancer mortality rates for Wisconsin men were lung (65 per 100,000), prostate (31 per 100,000) and colorectal (26 per 100,000).
 - Cancer deaths rise with age. Seventy-four percent of 1999 cancer deaths in Wisconsin occurred in those aged 65 or older.
 - The cancer mortality rate for the Southeastern region of the state (202 per 100,000 population) was higher than the statewide rate (192 per 100,000). Among Wisconsin's counties with populations over 100,000, the five highest cancer mortality rates occurred in Waukesha County (210 per 100,000), Milwaukee County (209 per 100,000), Winnebago and Racine counties (196 per 100,000 in both) and Kenosha County (195 per 100,000).

Introduction: Guide for Reading this Report

Content of the Report. *Wisconsin Cancer Incidence and Mortality, 1999* summarizes data on cases among Wisconsin residents diagnosed with cancer between January 1, 1999 and December 31, 1999 and reported to WCRS by November 15, 2001. The majority, approximately 95 percent, of WCRS's estimated 1999 cases are included in this report (some cases do not get reported until after publication). Mortality data are derived from 1999 Wisconsin resident death records where the underlying cause of death was listed as cancer.

Incidence and mortality data are analyzed by demographic characteristics of sex, age and race. Race is presented in four categories: White, African American, American Indian and Asian/Pacific Islander. Data on Hispanic ethnicity are not provided in this report. Age-adjusted rates for racial/ethnic groups were not calculated because the numbers from one year (1999) were too small for statistical reliability.

The geographic variables in this report (county and zip code) are based on the patient's residence at time of diagnosis for incidence data, and residence at time of death for mortality data. Rates were not calculated for many counties because the numbers were too small to produce reliable rates; only those counties with populations over 100,000 (13 of 72 counties in the state) were considered sufficient in size for rate calculations.

All cancer incidence cases in this report are classified and listed in order of their site group classification found in the *International Classification of Diseases for Oncology (ICD-O), Second Edition*. Mortality data are classified as listed in the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)*.

Data Sources. This report includes all cancer cases reported to WCRS that were diagnosed in 1999 among Wisconsin residents. These cases were reported by Wisconsin hospitals, clinics and physician offices, cooperating out-of-state cancer registries and selected Minnesota hospitals.

The 1999 mortality data were obtained from death certificates for Wisconsin residents, collected and coded by the Vital Records Section, Bureau of Health Information. Cancer mortality rate calculations are based on the underlying cause of death recorded on the death certificate.

The Bureau of Health Information (BHI) prepares the Wisconsin population estimates used to calculate rates. These estimates are for July 1, 1999. To produce these estimates, BHI uses January 1 state and county population totals developed by the Wisconsin Department of Administration, Demographic Services, together with the mid-year age- and sex-specific state estimates from the Population Estimates Branch of the U.S. Bureau of the Census.

Invasive and In Situ Cases. This annual report focuses on invasive cancer data in response to an increasing interest in comparing Wisconsin data with national data and data from other states. Most of the incidence tables contain invasive-only cancers (cancer has penetrated into organ tissue). Seven tables (9, 10, 11 and supplemental tables A, B, D and E) present both invasive and *in situ* (non-invasive) cancers for data users interested in the total number of cases.

Invasive cancer rates exclude all *in situ* cancer cases except for those of the urinary bladder (following national standards). The seven *in situ/invasive combined* incidence tables are provided to allow comparisons with data in previous annual reports and to address hospitals' needs to compare individual hospital data with statewide totals (for hospitals that prepare their own annual reports).

Age-adjusted Incidence and Mortality Rates. Following CDC guidelines, WCRS age-adjusts incidence and mortality rates per 100,000 population for Wisconsin residents to the U.S. Census Bureau's 2000 standard population age distribution. Rates are age-adjusted to account for differences in age distribution over time and across different geographic regions.

Cancer incidence rates reflect the number of newly diagnosed cancers in the population; this is not the same as the number of individuals who have been newly diagnosed with cancer. For example, in this report, a person diagnosed with two cancers in the same year will add two cancers to the annual cancer incidence rate. Thus "cancer cases" are distinguished from "individuals with cancer."

Notice to Readers: New Population Standard for Age-Adjusted Incidence and Mortality Rates.

The U.S. Department of Health and Human Services adopted a policy to begin using a single new population standard for age-adjusting rates based on the 2000 U.S. population. CDC mandated all NPCR states to use this standard effective for 1999 cancer incidence and mortality data.

The new population standard has two advantages:

- Previously, some state and Federal agencies used the 1970 U.S. population as the standard, while others used the 1940 population (especially for mortality data), making it difficult to compare data from different sources. Use of a single standard will help alleviate confusion among data users.
- The Year 2000 population standard more accurately represents the current U.S. age distribution and corresponds to the 2000 census year. The population has aged since 1970 and the new 2000 standard reflects the current population composition.

How does the new standard affect age-adjusted rates? Because older groups are weighted more heavily using the 2000 population, the rates will increase for most types of cancer since the majority of cancers occur in older populations. Cancer rates based on the Year 2000 population standard usually appear higher than those based on the 1970 population – even when the number of cases/deaths used to calculate the rates is identical. Readers should be aware that these rate changes are an artifact of the new 2000 population standard used in the rate calculations.

The age-adjusted rates can only be compared to other rates generated through the same method of adjustment to the same standard population. Therefore, it is important to note that rates calculated for 1999 should not be compared with rates calculated for earlier years unless they are also adjusted to the new 2000 standard population. Most state and Federal agencies have begun to convert rates from the 1970 standard to the 2000 standard, starting with 1999 data. However,

national cancer data from the National Cancer Institute's (NCI) Surveillance, Epidemiology and End Results (SEER) program and the North American Association of Central Cancer Registries (NAACCR) were not available for comparisons to Wisconsin data at the time this report was prepared. Rates in previous annual reports used the 1970 population standard and therefore should not be compared to the 1999 rates. For readers' convenience, tables 2 and 12, and figures 2, 3, 9 and 10 present rates age-adjusted to both the 1970 and the 2000 standards for comparison to previous annual reports and national publications.

Incidence and Mortality Comparisons. The incidence data presented in this report reflect cancers newly diagnosed in 1999. The mortality data represent cancer deaths that occurred in 1999; however, the cancer that led to the death *may have been diagnosed prior to 1999*. It is important that readers not reach conclusions about survival rates or percents based on 1999 incidence/mortality ratios. It is not correct to conclude that the same individuals are represented by incidence and mortality figures. Therefore, statements as, "Over 80 percent of lung cancer patients died within one year following diagnosis" (3,191 cases and 2,642 deaths in 1999), are not supported by WCRS data. Survival follow-up, in which cancer patients are tracked over the course of their disease, is not conducted by WCRS.

Data Quality and Limitations. This report represents data collected from different types of facilities (hospitals, clinics and central cancer registries). Reporting sources vary in their ability to provide timely and complete data, and WCRS appreciates the effort and dedication that reporting facilities make to ensure the overall good quality of Wisconsin cancer reports. However, variations in facility compliance and reporting practices exist based on the resources of the facility and the experience and qualifications of the reporters.

All Wisconsin-based facilities are *required* by Wisconsin statute to abstract and report cancer incidence data to WCRS within six months from the date of diagnosis or date of first contact with the patient. This 'six-month rule' is the national standard that all central cancer registries work to achieve and maintain. WCRS also received cases on a *voluntary* basis (information exchange protocol established through memoranda of understanding) from out-of-state sources such as Minnesota hospitals and clinics and out-of-state cancer registries.

WCRS staff edit, process and analyze the cancer data received. Quality assurance measures are in place to identify incomplete and/or inaccurate incoming data. Facility-specific training (in person, by phone, or through written correspondence) and group training sessions are implemented as needed (WCRS-initiated) or requested (facility-initiated).

The one-year time frame of this report limits certain data analyses because small numbers are reported for less common cancer sites and for county-level data. Frequency counts by cancer site are presented as an estimate of general magnitude for each county. Caution is warranted when computing rates or relative proportions due to the small population of many counties and relative rarity of some types of cancer.

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Demographics of Cancer Incidence

Table 1. Number and Percent of Invasive Cancer Cases by Individual Primary Site and Sex, Wisconsin, 1999

PRIMARY SITE (organ of origin)	MALE		FEMALE		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
Lip	27	0.2	15	0.1	42	0.2
Tongue	102	0.8	44	0.4	146	0.6
Major Salivary Glands	37	0.3	34	0.3	71	0.3
Gum	13	0.1	16	0.1	29	0.1
Floor of Mouth	35	0.3	12	0.1	47	0.2
Other & Unspecified Parts of Mouth	43	0.3	21	0.2	64	0.3
Oropharynx	82	0.7	28	0.2	110	0.5
Nasopharynx	19	0.2	12	0.1	31	0.1
Hypopharynx	63	0.5	13	0.1	76	0.3
Other Sites in Lip, Oral Cavity & Pharynx	11	0.1	5	0.0	16	0.1
Esophagus	223	1.8	71	0.6	294	1.2
Stomach	240	1.9	126	1.1	366	1.5
Small Intestine	62	0.5	40	0.3	102	0.4
Colon	1,127	9.1	1,113	9.7	2,240	9.4
Rectum, Rectosigmoid Junction & Anus	506	4.1	354	3.1	860	3.6
Liver & Intrahepatic Bile Duct	132	1.1	62	0.5	194	0.8
Gallbladder & Extrahepatic Bile Duct	43	0.3	87	0.8	130	0.5
Pancreas	277	2.2	299	2.6	576	2.4
Retroperitoneum & Peritoneum	14	0.1	22	0.2	36	0.2
Other Within Digestive Organs & Peritoneum	3	0.0	6	0.1	9	0.0
Nasal Cavities & Sinuses, Internal Ear	24	0.2	27	0.2	51	0.2
Larynx	161	1.3	55	0.5	216	0.9
Trachea, Bronchus & Lung	1,877	15.1	1,314	11.4	3,191	13.3
Pleura	38	0.3	9	0.1	47	0.2
Thymus, Heart & Mediastinum	15	0.1	12	0.1	27	0.1
Other Respiratory & Intrathoracic Sites	0	0.0	1	0.0	1	0.0
Hematopoietic & Reticuloendothelial Systems, Except Leukemia	156	1.3	141	1.2	297	1.2
Bone, Joints & Articular Cartilage	34	0.3	29	0.3	63	0.3
Connective, Subcutaneous & Other Soft Tissue	74	0.6	83	0.7	157	0.7
Melanoma of Skin	313	2.5	249	2.2	562	2.3
Breast	35	0.3	3,761	32.8	3,796	15.9
Uterus, NOS	-	-	35	0.3	35	0.1
Cervix Uteri	-	-	259	2.3	259	1.1
Placenta	-	-	3	0.0	3	0.0
Corpus Uteri	-	-	690	6.0	690	2.9
Ovary, Fallopian Tube & Broad Ligament	-	-	400	3.5	400	1.7
Other & Unspecified Female Genital Organs	-	-	90	0.8	90	0.4
Prostate	3,744	30.1	-	-	3,744	15.7
Testis	204	1.6	-	-	204	0.9
Penis & Other Male Genital Organs	25	0.2	-	-	25	0.1
Urinary Bladder	860	6.9	313	2.7	1,173	4.9
Kidney & Other Urinary Organs	463	3.7	269	2.3	732	3.1
Eye & Lacrimal Gland	22	0.2	37	0.3	59	0.2
Brain	184	1.5	165	1.4	349	1.5
Other & Unspecified Parts of Nervous System	6	0.0	11	0.1	17	0.1
Thyroid Gland	77	0.6	232	2.0	309	1.3
Other Endocrine Glands	7	0.1	2	0.0	9	0.0
Lymph Nodes	347	2.8	276	2.4	623	2.6
Hodgkin's Disease	87	0.7	72	0.6	159	0.7
Lymphoid Leukemia	155	1.2	124	1.1	279	1.2
Myeloid Leukemia	157	1.3	127	1.1	284	1.2
Other Leukemia	47	0.4	36	0.3	83	0.3
Other & Ill-defined Sites	66	0.5	51	0.4	117	0.5
Unknown Primary Site	203	1.6	227	2.0	430	1.8
All Reportable Sites	12,440	100.0	11,480	100.0	23,920	100.0

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Table 2. Number and Rates of *Invasive* Cancer Cases by Site Group and Sex, Rates Age-Adjusted to the 1970 and 2000 U.S. Standard Populations, Wisconsin, 1999

PRIMARY SITE	MALE			FEMALE			TOTAL		
	Number	Rate*	Rate**	Number	Rate*	Rate**	Number	Rate*	Rate**
Mouth & Pharynx	432	15.3	17.4	200	5.9	6.7	632	10.3	11.7
Stomach	240	8.3	10.1	126	3.1	3.9	366	5.4	6.6
Colorectal	1,633	56.7	68.4	1,467	37.5	46.0	3,100	46.2	55.9
Pancreas	277	9.7	11.5	299	7.5	9.3	576	8.6	10.4
Other Gastrointestinal Tract	477	16.6	19.8	288	7.7	9.2	765	11.7	13.9
Trachea, Bronchus & Lung	1,877	66.4	77.7	1,314	38.9	44.1	3,191	50.9	58.4
Other Respiratory	238	8.5	9.7	104	3.0	3.5	342	5.5	6.3
Bone & Connective Tissue	108	3.9	4.3	112	3.5	3.8	220	3.7	4.1
Melanoma of Skin	313	10.6	12.6	249	7.6	8.9	562	8.9	10.4
Breast	35	1.2	1.5	3,761	110.6	128.6	3,796	59.3	69.8
Cervix Uteri	-	-	-	259	8.4	9.7	259	4.2	4.9
Corpus Uteri	-	-	-	690	21.2	23.9	690	11.2	12.8
Other Female Genital	-	-	-	528	15.5	17.9	528	8.2	9.7
Prostate	3,744	134.8	155.2	-	-	-	3,744	61.0	68.7
Other Male Genital	229	7.7	9.0	-	-	-	229	3.8	4.4
Urinary Bladder	860	29.5	36.4	313	8.4	10.0	1,173	17.7	21.2
Kidney & Other Urinary	463	16.2	19.1	269	7.9	9.0	732	11.6	13.4
Eye, Brain & Other Nervous Sys.	212	7.7	8.4	213	6.9	7.4	425	7.3	7.9
Lymph Nodes	434	15.1	17.7	348	10.2	11.8	782	12.4	14.4
Leukemia	359	12.8	14.8	287	8.2	9.4	646	10.3	11.8
All Others	509	17.6	21.2	653	18.4	21.9	1,162	17.8	21.2
All Reportable Sites	12,440	438.6	514.9	11,480	330.5	385.2	23,920	376.2	437.9

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Male rates are cases per 100,000 male residents, female rates are cases per 100,000 female residents, and total rates are cases per 100,000 residents. Site groups are listed in ICD-O2 numerical code order. See Technical Notes at the end of this report for the individual sites included in each site group.

*Rates are age-adjusted to the 1970 U.S. standard population.

**Rates are age-adjusted to the 2000 U.S. standard population.

- Males had a higher overall cancer incidence rate than females (515 compared to 385 per 100,000 population, respectively). Incidence rates were higher among males for all primary cancers (excluding sex-specific cancers).
- Compared with rates based on the 1970 standard population, rates based on the Year 2000 standard population were higher. The difference caused by this change in standard populations was greatest for cancers concentrated in older age groups, such as prostate cancer. Rates for typical childhood cancers, such as eye, brain and other nervous system cancers, and bone and connective tissue cancers, changed less.

Table 3. Number and Percent of Invasive Cancer Cases by Site Group and Race: Males, Wisconsin, 1999

PRIMARY SITE	White		African American		American Indian		Asian/Pacific Islander		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	396	3.4	26	5.9	2	5.0	4	7.0	4	3.9	432	3.5
Stomach	224	1.9	12	2.7	1	2.5	3	5.3	0	0.0	240	1.9
Colorectal	1,562	13.2	40	9.1	10	25.0	8	14.0	13	12.8	1,633	13.1
Pancreas	263	2.2	10	2.3	1	2.5	1	1.8	2	2.0	277	2.2
Other Gastrointestinal Tract	449	3.8	15	3.4	4	10.0	4	7.0	5	4.9	477	3.8
Trachea, Bronchus & Lung	1,780	15.1	80	18.1	4	10.0	9	15.8	4	3.9	1,877	15.1
Other Respiratory	218	1.8	17	3.8	0	0.0	2	3.5	1	1.0	238	1.9
Bone & Connective Tissue	104	0.9	4	0.9	0	0.0	0	0.0	0	0.0	108	0.9
Melanoma of Skin	309	2.6	1	0.2	0	0.0	0	0.0	3	2.9	313	2.5
Breast	35	0.3	0	0.0	0	0.0	0	0.0	0	0.0	35	0.3
Prostate	3,521	29.8	160	36.2	6	15.0	10	17.5	47	46.1	3,744	30.1
Other Male Genital	221	1.9	3	0.7	1	2.5	1	1.8	3	2.9	229	1.8
Urinary Bladder	848	7.2	5	1.1	1	2.5	1	1.8	5	4.9	860	6.9
Kidney & Other Urinary	436	3.7	18	4.1	3	7.5	2	3.5	4	3.9	463	3.7
Eye, Brain & Other Nervous System	203	1.7	4	0.9	2	5.0	3	5.3	0	0.0	212	1.7
Lymph Nodes	410	3.5	15	3.4	2	5.0	2	3.5	5	4.9	434	3.5
Leukemia	344	2.9	6	1.4	2	5.0	5	8.8	2	2.0	359	2.9
All Others	476	4.0	26	5.9	1	2.5	2	3.5	4	3.9	509	4.1
All Reportable Sites	11,799	100.0	442	100.0	40	100.0	57	100.0	102	100.0	12,440	100.0

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Percents are calculated from the total number of cases for the particular sex and race group.

Numbers of cases reported for minority race groups are small; therefore percents based on those numbers are subject to large random variation. Site groups are listed in ICD-O2 numerical code order. See Technical Notes at the end of this report for the individual sites included in each site group.

- The most frequently reported cancers for Wisconsin males, all races combined, were prostate (30%), lung (15%) and colorectal (13%). Relatively constant over time, this pattern is similar to past years.
- In 1999, prostate cancer was the most frequently reported cancer for all Wisconsin males except American Indians (for whom colorectal cancer was most frequent).

Table 4. Number and Percent of Invasive Cancer Cases by Site Group and Race: Females, Wisconsin, 1999

PRIMARY SITE	White		African American		American Indian		Asian/Pacific Islander		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	190	1.7	5	1.3	0	0.0	4	6.4	1	1.3	200	1.8
Stomach	117	1.1	6	1.5	0	0.0	3	4.8	0	0.0	126	1.1
Colorectal	1,390	12.7	52	13.3	6	21.4	10	16.1	9	11.5	1,467	12.8
Pancreas	274	2.5	20	5.1	1	3.6	2	3.2	2	2.6	299	2.6
Other Gastrointestinal Tract	268	2.4	15	3.8	0	0.0	3	4.8	2	2.6	288	2.5
Trachea, Bronchus & Lung	1,250	11.4	80	13.0	8	28.6	3	4.8	2	2.6	1,314	11.4
Other Respiratory	98	0.9	17	1.3	0	0.0	1	1.6	0	0.0	104	0.9
Bone & Connective Tissue	105	1.0	4	1.0	1	3.6	0	0.0	2	2.6	112	1.0
Melanoma of Skin	241	2.2	1	<.1	0	0.0	0	0.0	8	10.3	249	2.2
Breast	3,574	32.7	134	34.3	4	14.3	23	37.1	26	33.3	3,761	32.8
Cervix Uteri	218	2.0	25	6.4	4	14.3	2	3.2	10	12.8	259	2.3
Corpus Uteri	671	6.1	13	3.3	0	0.0	2	3.2	4	5.1	690	6.0
Other Female Genital	511	4.7	8	2.0	0	0.0	4	6.4	5	6.4	528	4.6
Urinary Bladder	308	2.8	4	1.0	0	0.0	0	0.0	1	1.3	313	2.7
Kidney & Other Urinary	261	2.4	4	1.0	2	7.1	1	1.6	1	1.3	269	2.4
Eye, Brain & Other Nervous System	204	1.9	7	1.8	0	0.0	0	0.0	2	2.6	213	1.9
Lymph Nodes	338	3.1	9	2.3	1	3.6	0	0.0	0	0.0	348	3.0
Leukemia	275	2.5	10	2.6	0	0.0	2	3.2	0	0.0	287	2.5
All Others	628	5.8	19	4.9	1	3.6	2	3.2	3	3.8	653	5.7
All Reportable Sites	10,921	100.0	391	100.0	28	100.0	62	100.0	78	100.0	11,480	100.0

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Percents are calculated from the total number of cases for the particular sex and race group.

Numbers of cases reported for minority race groups are small; therefore percents based on those numbers are subject to large random variation. Site groups are listed in ICD-O2 numerical code order. See Technical Notes at the end of this report for the individual sites included in each site group.

- The most frequently reported cancers for 1999 among Wisconsin females, all races combined, were breast (33%), colorectal (13%) and lung (11%). Virtually identical to 1998, the proportion represented by these cancers is relatively consistent over time.
- Breast cancer was the most frequently reported cancer in 1999 among Wisconsin females except American Indians (for whom colorectal and lung cancers were more frequently reported).

Table 5. Number and Age-Adjusted Rate of *Invasive* Cancer Cases by Major Site Group and Region, Wisconsin, 1999

PRIMARY SITE		REGION					TOTAL
		SOUTH	SOUTHEAST	NORTHEAST	WEST	NORTH	
Colorectal	Number	545	1,105	693	452	305	3,100
	Rate	57.0	55.8	55.5	57.4	53.7	55.9
Other Gastrointestinal Tract	Number	366	982	510	247	234	2,339
	Rate	38.5	49.9	41.3	31.6	42.0	42.6
Respiratory	Number	611	1,393	748	430	351	3,533
	Rate	64.8	71.1	61.1	55.9	62.9	64.7
Breast	Number	659	1,459	833	472	373	3,796
	Rate	69.1	73.8	68.6	62.3	69.3	69.7
Female Genital	Number	291	517	342	174	153	1,477
	Rate	30.7	26.3	28.7	23.2	28.9	27.4
Male Genital	Number	675	1,526	982	415	375	3,973
	Rate	71.8	78.3	80.4	53.7	67.1	73.1
Urinary Tract	Number	308	695	458	243	201	1,905
	Rate	32.5	35.3	37.0	30.9	35.7	34.6
Leukemia & Lymph Nodes	Number	258	509	334	168	159	1,428
	Rate	27.1	25.7	27.8	22.1	28.8	26.2
All Others	Number	433	907	554	289	186	2,369
	Rate	45.4	45.8	45.8	38.1	35.0	43.6
All Reportable Sites	Number	4,146	9,093	5,454	2,890	2,337	23,920
	Rate	436.7	461.8	446.3	375.2	423.3	437.9

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Rates are cases per 100,000 residents, age-adjusted to the Year 2000 U.S. standard population.

The regions used are the Department of Health and Family Services Regions; see Map on page 63 for regional boundaries.

See Technical Notes at the end of this report for the individual sites included in each major site group. In this table, the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx."

- Regional age-adjusted cancer incidence rates ranged from 375 per 100,000 population in the Western region to 462 per 100,000 population in the Southeastern region.

Table 6. Number and Age-Adjusted Rate of *Invasive* Cancer Cases by Major Site Group, Counties Over 100,000 Population, Wisconsin, 1999

Primary Site		Brown	Dane	Kenosha	La Crosse	Marathon	Milwaukee	Outagamie
Colorectal	Number	108	200	67	62	74	494	81
	Rate	52.3	60.0	48.7	58.5	55.8	51.5	54.4
Other Gastro-Intestinal Tract	Number	76	136	56	41	42	502	77
	Rate	36.6	39.5	40.3	39.4	32.2	53.9	52.1
Respiratory	Number	112	226	117	63	72	702	110
	Rate	54.6	68.2	85.1	62.6	55.1	75.7	75.3
Breast	Number	140	267	105	96	85	664	111
	Rate	66.7	74.4	75.5	96.0	65.0	71.7	73.5
Female Genital	Number	66	116	45	18	32	278	45
	Rate	31.4	31.8	32.9	-	24.5	30.0	29.5
Male Genital	Number	169	268	81	67	85	689	105
	Rate	83.7	80.6	59.0	68.2	65.7	74.5	72.4
Urinary Tract	Number	72	97	41	44	49	309	72
	Rate	35.3	28.0	29.5	43.8	37.1	32.6	48.4
Leukemia & Lymph Nodes	Number	54	110	39	32	37	219	49
	Rate	25.7	31.2	28.4	31.0	28.4	23.0	32.5
All Others	Number	88	190	57	63	40	407	73
	Rate	40.6	51.0	40.6	60.9	30.1	43.1	47.6
All Reportable Sites	Number	885	1,610	608	486	516	4,264	723
	Rate	427.1	464.8	439.9	478.1	394.0	456.0	485.8

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Rates are cases per 100,000 residents, age-adjusted to the Year 2000 U.S. standard population. See Technical Notes at the end of this report for the individual sites included in each major site group. In this table, the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx." Rates for fewer than 20 cases are omitted because they are subject to large random fluctuation.

(table continued on next page)

Table 6. Number and Age-Adjusted Rate of *Invasive* Cancer Cases by Major Site Group, Counties Over 100,000 Population, Wisconsin, 1999 (continued)

Primary Site		Racine	Rock	Sheboygan	Waukesha	Washington	Winnebago	State Total
Colorectal	Number	132	95	82	205	77	101	3,100
	Rate	68.5	59.3	64.8	61.7	70.8	61.6	55.9
Other Gastro-Intestinal Tract	Number	96	68	49	183	40	74	2,339
	Rate	50.0	42.4	38.5	55.1	36.9	46.1	42.6
Respiratory	Number	137	127	82	219	64	112	3,533
	Rate	71.1	79.5	67.1	67.2	59.5	70.5	64.7
Breast	Number	144	114	80	287	88	108	3,796
	Rate	74.7	72.2	65.7	81.6	79.6	67.9	69.8
Female Genital	Number	37	54	34	85	18	41	1,477
	Rate	19.5	34.6	28.3	24.4	-	26.0	27.4
Male Genital	Number	143	108	121	328	86	117	3,973
	Rate	74.6	67.4	99.5	97.7	79.3	74.5	73.1
Urinary Tract	Number	62	57	43	145	39	72	1,905
	Rate	32.3	35.7	35.0	43.5	36.2	45.4	34.6
Leukemia & Lymph Nodes	Number	52	39	37	100	32	49	1,428
	Rate	27.6	25.0	31.2	29.3	29.6	30.7	26.2
All Others	Number	83	72	62	201	39	77	2,369
	Rate	43.1	45.9	50.5	58.8	35.5	48.9	43.6
All Reportable Sites	Number	886	734	590	1,753	483	751	23,920
	Rate	461.5	462.0	480.2	519.3	443.6	471.8	437.9

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Rates are cases per 100,000 residents, age-adjusted to the Year 2000 U.S. standard population. See Technical Notes at the end of this report for the individual sites included in each major site group. In this table, the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx." Rates for fewer than 20 cases are omitted because they are subject to large random fluctuation.

- In 1999, the 13 most populous counties in Wisconsin had age-adjusted cancer incidence rates ranging from 394 per 100,000 population (Marathon County) to 519 per 100,000 population (Waukesha County). The statewide rate was 438 per 100,000 population.

Table 7. Number of *Invasive* Cancer Cases by Site Group, Age and Sex, Wisconsin, 1999

PRIMARY SITE	AGE AND SEX														
	Total	Males	Females	0-19		20-24		25-29		30-34		35-39		40-44	
				M	F	M	F	M	F	M	F	M	F	M	F
Mouth & Pharynx	632	432	200	2	0	0	1	5	0	3	4	9	3	24	12
Stomach	366	240	126	0	0	0	0	1	0	1	1	2	1	2	1
Colorectal	3,100	1,633	1,467	0	1	2	3	4	1	6	5	21	15	22	32
Pancreas	576	277	299	0	0	0	0	2	0	0	1	1	1	3	3
Other Gastrointestinal Tract	765	477	288	5	1	2	1	0	2	3	0	11	2	9	2
Trachea, Bronchus & Lung	3,191	1,877	1,314	0	0	0	0	1	0	3	0	11	13	33	39
Other Respiratory	342	238	104	2	1	2	1	0	1	4	1	2	4	8	4
Bone & Connective Tissue	220	108	112	12	17	3	2	4	5	5	3	6	2	4	9
Melanoma of Skin	562	313	249	3	7	3	9	6	15	9	17	22	25	28	28
Breast	3,796	35	3,761	0	0	0	3	0	15	0	55	2	112	1	253
Cervix Uteri	259	0	259	0	6	0	11	0	29	0	30	0	39	0	34
Corpus Uteri	690	0	690	0	0	0	4	0	2	0	6	0	25	0	19
Other Female Genital	528	0	528	0	7	0	4	0	10	0	10	0	19	0	30
Prostate	3,744	3,744	0	0	0	0	0	0	0	0	0	0	0	3	0
Other Male Genital	229	229	0	7	0	20	0	32	0	37	0	32	0	27	0
Urinary Bladder	1,173	860	313	0	1	1	1	0	1	3	1	6	6	17	3
Kidney & Other Urinary	732	463	269	1	3	0	1	4	1	7	1	11	6	17	7
Eye, Brain & Other Nervous System	425	212	213	20	26	11	6	1	4	8	6	11	11	16	14
Lymph Nodes	782	434	348	13	12	11	11	15	7	13	20	23	14	23	14
Leukemia	646	359	287	26	26	3	0	5	6	8	10	7	5	11	3
All Others	1,162	509	653	5	10	5	16	8	15	7	27	14	33	9	52
All Reportable Sites	23,920	12,440	11,480	96	118	63	74	88	114	117	198	191	336	257	559

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Age groupings vary in this table; childhood cancers (0-19) are followed by 5-year groupings.
See Technical Notes at the end of this report for the individual sites included in each site group.

(Table continued on next page)

Table 7. Number of Cancer Cases by Site Group, Age and Sex, Wisconsin, 1999 (Continued)

	AGE AND SEX																	
	45-49		50-54		55-59		60-64		65-69		70-74		75-79		80-84		85+	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Mouth & Pharynx	40	11	54	15	54	10	58	29	62	34	43	30	33	16	26	19	19	16
Stomach	13	1	13	6	23	7	27	8	34	16	38	17	34	22	31	20	21	26
Colorectal	69	53	99	57	127	77	222	122	221	187	269	221	246	224	189	204	136	265
Pancreas	15	10	29	13	27	13	27	17	38	42	53	45	36	49	30	61	16	44
Other Gastrointestinal Tract	20	13	39	14	45	24	44	20	63	30	88	50	73	49	45	45	20	35
Trachea, Bronchus & Lung	39	39	92	98	159	122	242	173	328	212	388	225	302	185	193	136	86	72
Other Respiratory	11	6	19	8	30	6	31	11	36	17	39	12	27	14	17	9	10	9
Bone & Connective Tissue	9	5	8	7	12	11	3	5	7	5	13	7	11	13	8	13	3	8
Melanoma of Skin	22	21	33	21	21	11	29	19	34	15	38	23	32	10	22	18	11	10
Breast	0	360	1	376	4	392	5	400	3	380	7	423	4	423	4	313	4	256
Cervix Uteri	0	15	0	28	0	17	0	13	0	10	0	12	0	10	0	3	0	2
Corpus Uteri	0	54	0	73	0	86	0	77	0	93	0	96	0	89	0	32	0	34
Other Female Genital	0	41	0	37	0	39	0	60	0	56	0	59	0	64	0	59	0	33
Prostate	51	0	197	0	371	0	533	0	734	0	777	0	544	0	338	0	196	0
Other Male Genital	21	0	7	0	9	0	6	0	7	0	7	0	9	0	4	0	4	0
Urinary Bladder	26	9	40	13	62	22	80	27	140	50	150	45	146	42	101	51	88	41
Kidney & Other Urinary	30	10	26	16	47	29	58	31	68	30	69	46	59	44	35	26	31	18
Eye, Brain & Other Nervous System	9	13	17	8	17	21	29	15	15	22	27	23	12	15	13	15	6	14
Lymph Nodes	24	17	30	22	40	28	44	26	41	38	52	30	41	41	37	34	27	34
Leukemia	14	17	17	11	28	18	32	28	42	17	62	29	56	45	28	29	20	43
All Others	33	37	46	37	35	42	56	47	66	55	57	77	69	64	55	76	44	65
All Reportable Sites	446	732	767	860	1,111	975	1,526	1,128	1,939	1,309	2,177	1,470	1,734	1,419	1,176	1,163	752	1,025

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Age groupings vary in this table; childhood cancers (0-19) are followed by 5-year groupings.
See Technical Notes at the end of this report for the individual sites included in each site group.

- Cancer is closely related to increasing age and rises in frequency dramatically after age 50.
- Certain types of cancer (leukemia, eye brain and other central nervous system, lymphomas, and bone/connective tissue) are more common in children and account for nearly three-fourths of childhood cancers, but less than one-tenth of adult cancers.

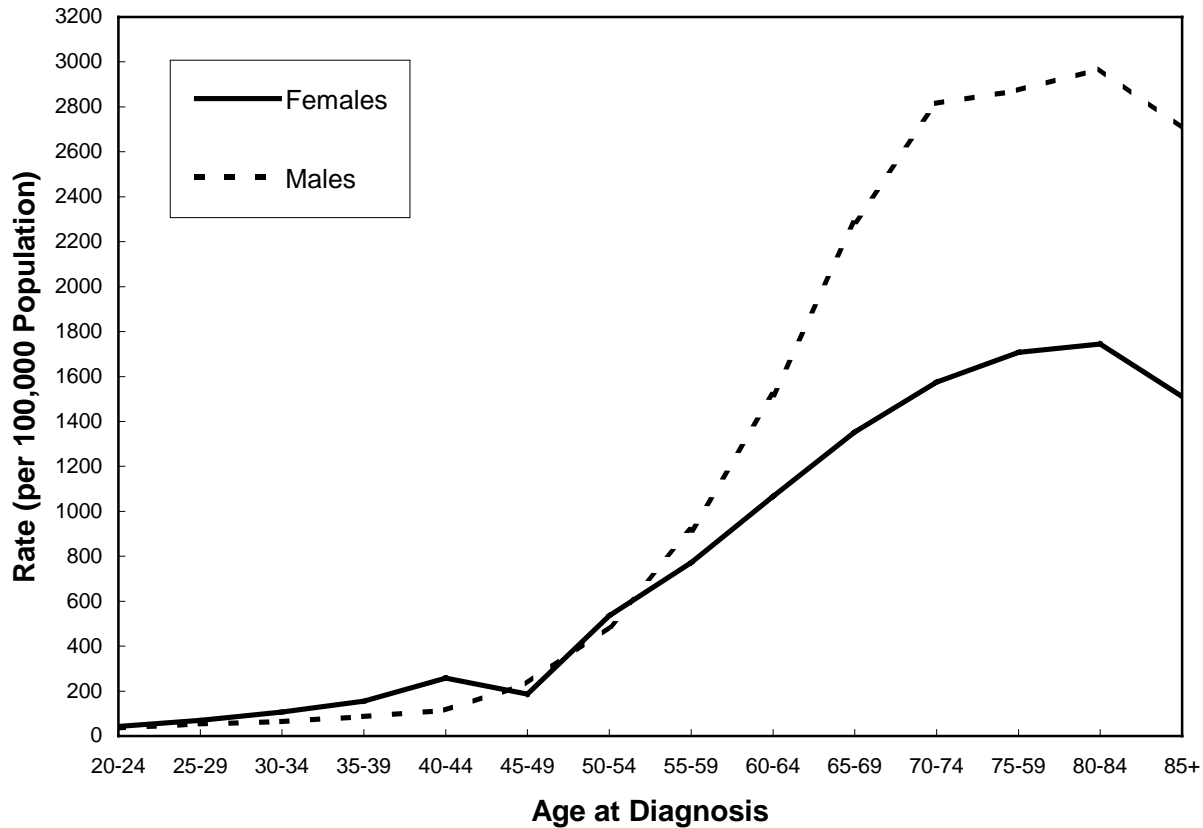
Table 8. Number of *Invasive* Cancer Cases by Race, Age and Sex, Wisconsin, 1999

	AGE GROUP							TOTAL
	0 - 14	15 - 24	25 - 44	45 - 64	65 - 74	75 - 84	85 +	
MALES								
White	61	79	600	3,596	3,915	2,811	737	11,799
African American	3	6	35	189	143	58	8	442
American Indian	0	2	3	14	15	4	2	40
Asian/Pacific Islander	4	2	6	28	11	6	0	57
Unknown	1	1	9	23	32	31	5	102
Total Males	69	90	653	3,850	4,116	2,910	752	12,440
FEMALES								
White	54	116	1,103	3,472	2,665	2,510	1,001	10,921
African American	5	6	69	164	79	52	16	391
American Indian	1	1	6	11	6	2	1	28
Asian/Pacific Islander	2	1	7	25	18	6	3	62
Unknown	2	4	22	23	11	12	4	78
Total Females	64	128	1,207	3,695	2,779	2,582	1,025	11,480
TOTAL								
White	115	195	1,703	7,068	6,580	5,321	1,738	22,720
African American	8	12	104	353	222	110	24	833
American Indian	1	3	9	25	21	6	3	68
Asian/Pacific Islander	6	3	13	53	29	12	3	119
Unknown	3	5	31	46	43	43	9	180
Total	133	218	1,860	7,545	6,895	5,492	1,777	23,920

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

- The largest number of cancer cases among females was in the 45-64 age group, regardless of race.
- More variation by race was found among males. The largest number of cases reported among African American and Asian/Pacific Islander males was in the 45-64 age group; while the largest number of cases reported among white and American Indian males and males of unknown race was in the 65-74 age group.

Figure 1. Age-Specific *Invasive* Cancer Incidence Rates, by Sex, Wisconsin, 1999



Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

- In general, cancer incidence rises with age for both males and females (until about age 80).
- Males have a lower incidence rate than females until about age 50, after which point male cancer incidence exceeds female incidence. The margin of difference expands with increasing age.

Figure 2. Male Invasive Cancer Incidence Rates, Age-Adjusted to the 1970 and 2000 Standard Populations, Wisconsin, 1990-1999

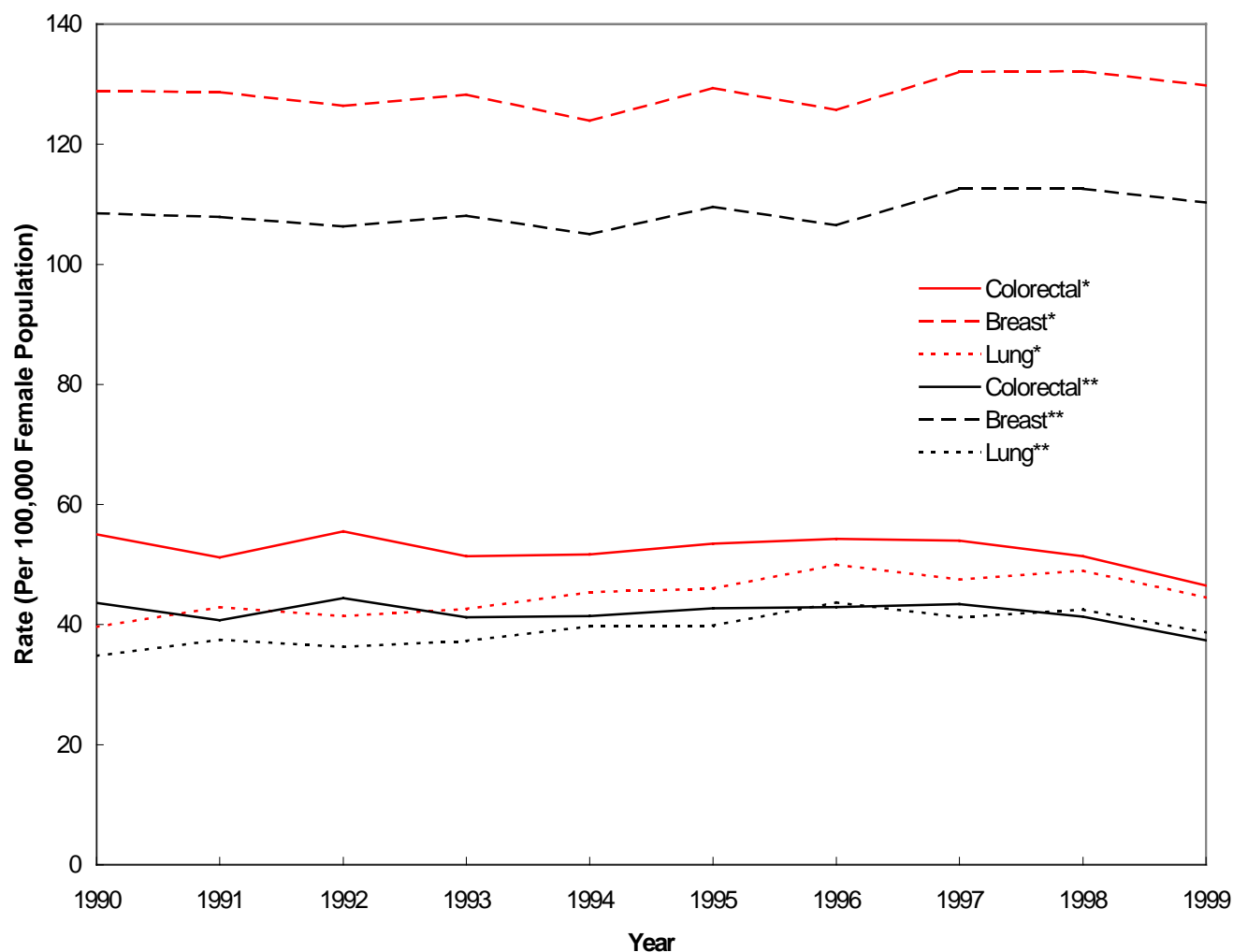


Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

* Rates age-adjusted to the 2000 U.S. standard population.

** Rates age-adjusted to the 1970 U.S. standard population.

Figure 3. Female Invasive Cancer Incidence Rates, Age-Adjusted to the 1970 and 2000 Standard Populations, Wisconsin, 1990-1999



Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

* Rates age-adjusted to the 2000 U.S. standard population.

** Rates age-adjusted to the 1970 U.S. standard population.

Table 9. Number and Percent of *In Situ/Invasive Combined* Cancer Cases by Site Group and Stage of Disease, Wisconsin, 1999

	STAGE OF DISEASE										
	IN SITU		LOCAL		REGIONAL		DISTANT		NOT STATED		TOTAL
PRIMARY SITE	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Mouth & Pharynx	14	2.2	267	41.3	290	44.9	42	6.5	33	5.1	646
Stomach	4	1.1	99	26.8	127	34.3	101	27.3	39	10.5	370
Colorectal	216	6.5	1,128	34.0	1,265	38.1	513	15.5	294	8.9	3,316
Pancreas	2	0.3	79	13.7	183	31.7	260	45.0	54	9.3	578
Other Gastrointestinal Tract	12	1.5	240	30.9	226	29.1	203	26.1	96	12.4	777
Trachea, Bronchus & Lung	4	0.1	715	22.4	950	29.7	1,304	40.8	222	6.9	3,195
Other Respiratory	18	5.0	176	48.9	109	30.3	30	8.3	27	7.5	360
Bone & Connective Tissue	0	0.0	123	55.9	36	16.4	40	18.2	21	9.5	220
Melanoma of Skin	140	19.9	422	60.1	36	5.1	32	4.6	72	10.3	702
Breast	744	16.4	2,445	53.9	1,023	22.5	157	3.5	171	3.8	4,540
Cervix Uteri	550	68.0	123	15.2	51	6.3	19	2.3	66	8.2	809
Corpus Uteri	9	1.3	530	75.8	95	13.6	45	6.4	20	2.9	699
Other Female Genital	66	11.1	174	29.3	103	17.3	221	37.2	30	5.1	594
Prostate	1	0.0	2,982	79.6	380	10.1	179	4.8	203	5.4	3,745
Other Male Genital	7	3.0	163	69.1	38	16.1	18	7.6	10	4.2	236
Urinary Bladder	318	27.1	634	54.0	103	8.8	31	2.6	87	7.4	1,173
Kidney & Other Urinary	17	2.3	424	56.6	110	14.7	152	20.3	46	6.1	749
Eye, Brain & Other Nervous System	5	1.2	334	77.7	46	10.7	13	3.0	32	7.4	430
Lymph Nodes	0	0.0	183	23.4	166	21.2	433	55.4	0	0.0	782
Leukemia	0	0.0	0	0.0	0	0.0	646	100.0	0	0.0	646
All Others	0	0.0	273	23.5	104	9.0	475	40.9	310	26.7	1,162
All Reportable Sites	2,217	8.3	11,514	44.8	5,441	21.2	4,914	19.1	1,733	6.8	25,729

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: See Technical Notes at the end of this report for definitions of the “stage of disease” categories and the individual sites included in each site group.

- In 1999, over one-half (53%) of all Wisconsin cancers were diagnosed at an early stage (*in situ* or local). Prostate, breast, cervical, uterine, bladder, melanoma of skin, ‘other’ male genital and central nervous system cancers were diagnosed early in over 70 percent of cases reported.
- Lung and pancreatic cancers were diagnosed at a later stage (regional or distant) in over 70 percent of cases.

Table 10. Percent of *In Situ/Invasive Combined* Cancer Cases by Site Group and Diagnostic Confirmation, Wisconsin, 1999

Primary Site	TYPE OF DIAGNOSTIC CONFIRMATION									Total (Number)
	Positive Histology	Cyto- Logy/ Blood	Micro- Scopic NOS	Lab Test/ Marker	Surgical Observation	Imaging	Other Clinical Methods	Autopsy	Not Stated	
Mouth & Pharynx	97.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.1	646
Stomach	95.9	1.1	0.0	0.0	0.8	0.5	0.3	0.0	1.4	370
Colorectal	97.4	0.1	0.2	0.1	0.8	0.2	0.1	0.0	1.1	3,316
Pancreas	65.6	14.4	0.2	0.9	0.9	10.7	2.2	0.2	5.0	578
Other Gastro- Intestinal Tract	87.3	4.0	2.3	0.0	0.0	2.7	0.1	0.3	3.3	777
Trachea, Bronchus & Lung	77.9	12.7	0.5	0.0	0.3	5.3	0.4	0.0	2.9	3,195
Other Respiratory	96.9	0.8	0.0	0.0	0.0	0.3	0.0	0.0	1.9	360
Bone & Connective Tissue	96.8	0.5	0.9	0.0	0.0	0.9	0.0	0.0	0.9	220
Melanoma of Skin	99.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	702
Breast	98.1	0.6	0.1	0.0	0.1	0.4	0.1	0.0	0.6	4,540
Cervix Uteri	98.9	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	809
Corpus Uteri	99.1	0.3	0.1	0.0	0.0	0.3	0.0	0.0	0.1	699
Other Female Genital	93.3	2.7	0.0	0.5	0.0	1.5	0.8	0.0	1.2	594
Prostate	97.5	0.2	0.0	1.3	0.0	0.2	0.3	0.0	0.6	3,745
Other Male Genital	97.9	0.4	0.4	0.0	0.0	0.8	0.0	0.0	0.4	236
Urinary Bladder	97.0	1.3	0.5	0.0	0.2	0.5	0.0	0.0	0.5	1,173
Kidney & Other Urinary	88.5	2.7	4.4	0.0	0.0	3.3	0.3	0.0	0.8	749
Eye, Brain & Other Nervous System	84.0	0.2	8.1	0.0	0.5	3.0	0.0	0.0	4.2	430
Lymph Nodes	94.9	1.4	1.2	0.0	0.0	0.0	0.0	0.3	2.3	782
Leukemia	76.0	5.1	12.7	1.9	0.0	0.2	0.3	0.0	3.9	646
All Others	81.2	6.6	1.4	0.5	0.1	5.7	0.6	0.3	3.8	1,162
All Reportable Sites										
Percent	92.3	3.0	0.9	0.3	0.1	1.7	0.2	0.0	1.5	100.0
Number	23,738	763	229	75	32	432	64	11	385	25,729

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Cancers listed under "Microscopic NOS" (not otherwise specified) were diagnosed microscopically but without specification of positive histology or cytology.

Percents may not add to 100 due to rounding.

See Technical Notes at the end of this report for definitions of type of diagnostic confirmation.

Table 11. Number and Percent of *In Situ/Invasive Combined* Cancer Cases by Site Group and Tumor Cell Type, Wisconsin, 1999

PRIMARY SITE	CELL TYPE GROUP									
	CARCINOMA/ ADENOCARCINOMA		OTHER SOLID		NON-SOLID		UNKNOWN		TOTAL	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
Mouth & Pharynx	566	87.6	41	6.3	33	5.1	6	0.9	646	100.0
Stomach	314	84.9	9	2.4	38	10.3	9	2.4	370	100.0
Colorectal	3,241	97.7	0	0.0	15	0.5	60	1.8	3,316	100.0
Pancreas	497	86.0	3	0.5	3	0.5	75	13.0	578	100.0
Other Gastrointestinal Tract	668	86.0	34	4.4	43	5.5	32	4.1	777	100.0
Trachea, Bronchus & Lung	2,929	91.7	53	1.7	11	0.3	202	6.3	3,195	100.0
Other Respiratory	256	71.1	77	21.4	19	5.3	8	2.2	360	100.0
Bone & Connective Tissue	0	0.0	174	79.0	39	17.7	7	3.2	220	100.0
Melanoma of Skin	0	0.0	702	100.0	0	0.0	0	0.0	702	100.0
Breast	4,440	97.8	31	0.7	11	0.2	58	1.2	4,540	100.0
Cervix Uteri	796	98.4	11	1.4	1	0.1	1	0.1	809	100.0
Corpus Uteri	633	90.6	62	8.9	0	0.0	4	0.6	699	100.0
Other Female Genital	504	84.8	74	12.5	1	0.2	15	2.5	594	100.0
Prostate	3,725	99.5	0	0.0	0	0.0	20	0.5	3,745	100.0
Other Male Genital	30	12.7	194	82.2	10	4.2	2	0.8	236	100.0
Urinary Bladder	1,134	96.7	31	2.6	0	0.0	8	0.7	1,173	100.0
Kidney & Other Urinary	715	95.5	9	1.2	3	0.4	22	2.9	749	100.0
Eye, Brain & Other Nervous System	7	1.6	361	89.0	40	9.3	22	5.1	430	100.0
Lymph Nodes	0	0.0	0	0.0	782	100.0	0	0.0	782	100.0
Leukemia	0	0.0	0	0.0	646	100.0	0	0.0	646	100.0
All Others	507	43.6	243	20.9	321	27.6	91	7.8	1,162	100.0
All Reportable Sites	20,962	81.5	2,109	8.2	2,016	7.8	642	2.5	25,729	100.0

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services

Notes: Percents may not add to 100 due to rounding.
See Technical Notes at the end of this report for the individual sites included in each site group.

- Tumor cell type is often closely related to the type of tissue in which the tumor originated. The majority of cancers reported (81%) were solid tumors such as carcinomas (developing from epithelial cells in the skin or organ surface) and adenocarcinomas (tumors developed from glandular tissue).
- Other solid tumors include sarcomas (originating from bone, cartilage, fat, muscle, or other connective tissue), nerve cell and germ cell tumors. Lymphomas, leukemias and plasma cell tumors are nonsolid tumors.

Table 12. Number and Rates of Cancer Deaths by Site Group and Sex, Rates Age-Adjusted to the 1970 and 2000 U.S. Standard Populations, Wisconsin, 1999

PRIMARY SITE	MALE			FEMALE			TOTAL		
	Number	Rate*	Rate**	Number	Rate*	Rate**	Number	Rate*	Rate**
Mouth & Pharynx	95	3.3	3.9	47	1.2	1.5	142	2.2	2.6
Stomach	130	4.3	5.5	73	1.7	2.2	203	2.9	3.6
Colorectal	601	20.2	25.8	568	11.8	16.8	1,169	16.0	20.7
Pancreas	273	9.3	11.6	303	7.3	9.2	576	8.3	10.3
Other Gastrointestinal Tract	409	14.0	17.2	216	5.2	6.6	625	9.1	11.2
Trachea, Bronchus & Lung	1,553	54.3	65.3	1,089	30.4	35.4	2,642	40.8	48.0
Other Respiratory	71	2.5	2.9	23	0.6	0.7	94	1.5	1.7
Bone & Connective Tissue	57	2.0	2.6	51	1.3	1.6	108	1.6	1.9
Melanoma of Skin	90	3.0	3.8	52	1.4	1.7	142	2.1	2.6
Breast	10	0.3	0.4	824	21.4	26.3	834	11.9	14.9
Cervix Uteri	-	-	-	67	1.9	2.3	67	1.0	1.2
Corpus Uteri	-	-	-	73	1.7	2.2	73	1.0	1.3
Other Female Genital	-	-	-	359	9.4	11.4	359	5.2	6.4
Prostate	681	21.0	31.4	-	-	-	681	8.2	11.7
Other Male Genital	13	0.4	0.5	-	-	-	13	0.2	0.2
Urinary Bladder	159	5.2	7.0	82	1.7	2.4	241	3.1	4.2
Kidney & Other Urinary	177	6.0	7.5	85	2.2	2.7	262	3.9	4.7
Eye, Brain & Other Nervous System	151	5.3	6.0	106	3.0	3.6	257	4.1	4.7
Lymph Nodes	294	9.8	12.5	247	6.3	7.6	541	7.8	9.7
Leukemia	257	8.4	11.1	212	5.3	6.6	469	6.6	8.4
All Others	658	22.2	28.2	575	13.3	17.2	1,233	17.2	21.8
Total Cancer Deaths	5,679	191.9	243.2	5,052	128.1	158.0	10,731	154.7	192.1

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Male rates are deaths per 100,000 male residents, female rates are deaths per 100,000 female residents and total rates are deaths per 100,000 residents.

See Technical Notes at the end of this report for the individual sites included in each site group.

* Age-adjusted to the 1970 U.S. standard population

** Age-adjusted to the 2000 U.S. standard population

- The male mortality rate for all cancers (243 per 100,000 population, based on the 2000 standard) was higher than the female rate (158 per 100,000 population). Males had a higher mortality rate for all cancer sites (except sex-specific sites), which paralleled their higher cancer incidence.
- Table 12 shows two sets of 1999 age-adjusted rates cancer mortality rates, one based on the 1970 standard population and one based on the 2000 standard population. The difference in rates introduced by the change in standard populations varied by sex, with a 27 percent increase in the total cancer mortality rate for males and a 23 percent increase in the total cancer mortality rate for females.

Table 13. Number and Percent of Cancer Deaths by Site Group and Race: Males, Wisconsin, 1999

	White		African American		American Indian		Asian/ Pacific Islander		Total	
PRIMARY SITE	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	89	1.6	5	2.5	1	5.6	0	0.0	95	1.7
Stomach	110	2.0	14	6.9	2	11.1	4	17.4	130	2.3
Colorectal	585	10.8	13	6.4	2	11.1	1	4.3	601	10.6
Pancreas	261	4.8	10	4.9	1	5.6	1	4.3	273	4.8
Other Gastrointestinal Tract	389	7.2	18	8.9	1	5.6	1	4.3	409	7.2
Trachea, Bronchus & Lung	1,475	27.1	63	31.0	6	33.3	9	39.1	1,553	27.4
Other Respiratory	64	1.2	7	3.4	0	0.0	0	0.0	71	1.2
Bone & Connective Tissue	53	1.0	4	2.0	0	0.0	0	0.0	57	1.0
Melanoma of Skin	90	1.7	0	0.0	0	0.0	0	0.0	90	1.6
Breast	10	0.2	0	0.0	0	0.0	0	0.0	10	0.2
Prostate	661	12.2	18	8.9	1	5.6	1	4.3	681	12.0
Other Male Genital	13	0.2	0	0.0	0	0.0	0	0.0	13	0.2
Urinary Bladder	156	2.9	3	1.5	0	0.0	0	0.0	159	2.8
Kidney & Other Urinary	171	3.1	4	2.0	2	11.1	0	0.0	177	3.1
Eye, Brain & Other Nervous System	147	2.7	1	0.5	1	5.6	2	8.7	151	2.7
Lymph Nodes	286	5.3	7	3.4	1	5.6	0	0.0	294	5.2
Leukemia	248	4.6	8	3.9	0	0.0	1	4.3	257	4.5
All Others	627	11.5	28	13.8	0	0.0	3	13.0	658	11.6
Total Cancer Deaths	5,435	100.0	203	100.0	18	100.0	23	100.0	5,679	100.0

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Percents are calculated from the total number of cancer deaths in each race category. Numbers of deaths reported for minority race/ethnicity groups are small; therefore percents based on those numbers are subject to large random variation. See Technical Notes at the end of this report for the individual sites included in each site group.

- The leading sites of cancer deaths among Wisconsin males, for all races combined, were lung cancer (27%), prostate cancer (12%), and colorectal cancer (11%).
- Lung cancer was the leading cause of cancer deaths in males of all racial groups. Prostate cancer was the second leading cause of cancer deaths for white and African American males while stomach cancer was the second leading cause of cancer deaths for American Indian and Asian/Pacific Islander males.

Table 14. Number and Percent of Cancer Deaths by Site Group and Race: Females, Wisconsin, 1999

PRIMARY SITE	White		African American		American Indian		Asian/Pacific Islander		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	46	1.0	0	0.0	0	0.0	1	5.3	47	0.9
Stomach	66	1.4	5	2.9	0	0.0	2	10.5	73	1.4
Colorectal	544	11.2	19	11.1	3	15.0	2	10.5	568	11.2
Pancreas	288	5.9	14	8.1	1	5.0	0	0.0	303	6.0
Other Gastrointestinal Tract	205	4.2	7	4.1	1	5.0	3	15.8	216	4.3
Trachea, Bronchus & Lung	1,039	21.5	43	25.0	5	25.0	2	10.5	1,089	21.6
Other Respiratory	22	0.5	1	0.6	0	0.0	0	0.0	23	0.5
Bone & Connective Tissue	48	1.0	3	1.7	0	0.0	0	0.0	51	1.0
Melanoma of Skin	50	1.0	2	1.2	0	0.0	0	0.0	52	1.0
Breast	785	16.2	32	18.6	5	25.0	2	10.5	824	16.3
Cervix Uteri	60	1.2	4	2.3	3	15.0	0	0.0	67	1.3
Corpus Uteri	70	1.4	2	1.2	0	0.0	1	5.3	73	1.4
Other Female Genital	352	7.3	5	2.9	0	0.0	2	10.5	359	7.1
Urinary Bladder	78	1.6	3	1.7	0	0.0	1	5.3	82	1.6
Kidney & Other Urinary	84	1.7	1	0.6	0	0.0	0	0.0	85	1.7
Eye, Brain & Other Nervous System	102	2.1	4	2.3	0	0.0	0	0.0	106	2.1
Lymph Nodes	239	4.9	7	4.1	0	0.0	1	5.3	247	4.9
Leukemia	205	4.2	7	4.1	0	0.0	0	0.0	212	4.2
All Others	558	11.5	13	7.6	2	10.0	2	10.5	575	11.4
Total Cancer Deaths	4,841	100.0	172	100.0	20	100.0	19	100.0	5,052	100.0

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Percents are calculated from the total number of cancer deaths in each race category. Numbers of deaths reported for minority race/ethnicity groups are small; therefore percents based on those numbers are subject to large random variation. See Technical Notes at the end of this report for the individual sites included in each site group.

- The three leading sites of cancer deaths among Wisconsin females, for all races combined, were lung cancer (22%), breast cancer (16%) and colorectal cancer (11%).

Table 15. Number and Age-Adjusted Rate of Cancer Deaths by Major Site Group and Region, Wisconsin, 1999

PRIMARY SITE		DHFS REGION					
		SOUTH	SOUTHEAST	NORTHEAST	WEST	NORTH	TOTAL
Colorectal	Number	208	434	235	182	110	1,169
	Rate	21.5	21.8	18.3	22.4	18.8	20.7
Other Gastrointestinal Tract	Number	244	615	339	187	161	1,546
	Rate	25.3	31.1	26.9	23.1	28.3	27.7
Respiratory	Number	425	1,093	584	361	273	2,736
	Rate	44.8	55.7	47.0	46.3	48.3	49.7
Breast	Number	140	307	193	112	82	834
	Rate	14.5	15.3	15.3	14.0	14.8	14.9
Female Genital	Number	79	178	129	76	37	499
	Rate	8.2	9.0	10.3	9.3	6.6	9.0
Male Genital	Number	126	218	159	116	75	694
	Rate	12.8	10.8	12.0	13.2	12.4	12.0
Urinary Tract	Number	80	196	97	74	56	503
	Rate	8.2	9.9	7.7	9.0	9.9	9.0
Lymphoma & Leukemia	Number	185	358	229	152	86	1,010
	Rate	19.1	18.0	18.2	18.7	14.9	18.0
All Others	Number	290	613	430	254	153	1,740
	Rate	30.2	30.8	33.9	31.3	26.5	31.1
Total Cancer Deaths	Number	1,777	4,012	2,395	1,514	1,033	10,731
	Rate	184.7	202.4	189.6	187.4	180.6	192.1

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Rates are deaths per 100,000 residents, age-adjusted to the 2000 U.S. standard population.
The regions used are the Department of Health and Family Services Regions; see Map on page 63 for regional boundaries.
See Technical Notes at the end of this report for the individual sites included in each major site group.

- Regional age-adjusted cancer mortality rates ranged from 181 per 100,000 population in the Northern region to 202 per 100,000 population in the Southeastern region. The statewide rate was 192 per 100,000 population.

Table 16. Number and Age-Adjusted Rate of Cancer Deaths by Major Site Group, Counties Over 100,000 Population, Wisconsin, 1999

Primary Site		Brown	Dane	Kenosha	La Crosse	Marathon	Milwaukee	Outagamie
Colorectal	Number	25	68	33	20	21	208	30
	Rate	12.4	20.4	23.7	18.5	15.5	21.4	20.3
Other Gastro- Intestinal Tract	Number	61	77	41	27	33	299	33
	Rate	29.4	22.8	29.2	25.4	24.8	31.3	22.2
Respiratory	Number	87	140	92	54	53	567	68
	Rate	42.7	42.8	66.9	52.5	40.1	60.1	46.3
Breast	Number	33	50	17	15	21	159	14
	Rate	15.5	14.4	-	-	16.1	16.5	-
Female Genital	Number	27	29	8	9	5	89	20
	Rate	12.9	8.7	-	-	-	9.3	13.7
Male Genital	Number	20	42	13	11	16	108	21
	Rate	9.5	12.8	-	-	-	10.7	14.0
Urinary Tract	Number	21	23	8	7	16	99	13
	Rate	10.2	7.0	-	-	-	10.2	-
Leukemia & Lymph Nodes	Number	39	73	28	25	23	174	24
	Rate	18.8	21.4	20.1	23.5	17.2	18.1	16.2
All Others	Number	59	107	32	37	37	297	48
	Rate	28.1	31.4	22.7	35.6	27.8	31.1	31.7
Total Cancer Deaths	Number	372	609	272	205	225	2,000	271
	Rate	179.5	181.7	195.4	194.5	169.5	208.8	182.9

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Note: Rates are deaths per 100,000 residents, age-adjusted to the 2000 U.S. population standard. Rates for fewer than 20 deaths are omitted because they are subject to large random variation. See Technical Notes at the end of this report for the individual sites included in each major site group. In this table, the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx."

(Table continued on next page)

Table 16. Number and Age-Adjusted Rate of Cancer Deaths by Major Site Group, Counties Over 100,000 Population, Wisconsin, 1999 (continued)

Primary Site		Racine	Rock	Sheboygan	Waukesha	Washington	Winnebago	State Total
Colorectal	Number	40	33	29	70	17	30	1,169
	Rate	20.8	20.5	21.5	22.0	-	18.5	20.7
Other Gastro- Intestinal Tract	Number	60	36	33	115	26	57	1,546
	Rate	31.3	22.2	24.9	35.1	24.3	35.0	27.7
Respiratory	Number	101	81	50	165	47	72	2,736
	Rate	52.6	50.4	39.6	50.2	43.5	44.8	49.7
Breast	Number	25	19	24	55	12	25	834
	Rate	12.9	-	19.5	16.0	-	14.9	14.9
Female Genital	Number	15	10	12	28	7	16	499
	Rate	-	-	-	8.6	-	-	9.0
Male Genital	Number	18	15	9	39	18	16	694
	Rate	-	-	-	12.8	-	-	12.0
Urinary Tract	Number	17	12	6	34	13	11	503
	Rate	-	-	-	10.5	-	-	9.0
Leukemia & Lymph Nodes	Number	31	22	14	57	17	34	1,010
	Rate	16.1	13.9	-	17.2	-	20.8	18.0
All Others	Number	69	39	42	120	25	58	1,740
	Rate	36.0	24.2	34.0	37.2	22.8	35.4	31.1
Total Cancer Deaths	Number	376	267	219	683	182	319	10,731
	Rate	195.8	165.8	171.0	209.6	169.4	196.2	192.1

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Note: Rates are deaths per 100,000 residents, age-adjusted to the 2000 U.S. population standard. Rates for fewer than 20 deaths are omitted because they are subject to large random variation. See Technical Notes at the end of this report for the individual sites included in each major site group. In this table, the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx."

- The 1999 age-adjusted cancer mortality rates for the 13 most populous counties ranged from 166 per 100,000 population in Rock County to 210 per 100,000 population in Waukesha County. The statewide rate was 192 per 100,000.

Table 17. Number of Cancer Deaths by Site Group, Age and Sex, Wisconsin, 1999

PRIMARY SITE	AGE AND SEX														
				0-19		20-24		25-29		30-34		35-39		40-44	
	Total	Males	Females	M	F	M	F	M	F	M	F	M	F	M	F
Mouth & Pharynx	142	95	47	1	0	0	0	0	0	0	0	2	0	2	0
Stomach	203	130	73	0	0	0	0	1	1	0	0	2	1	5	2
Colorectal	1,169	601	568	1	0	0	0	1	1	1	2	3	4	8	8
Pancreas	576	273	303	0	0	0	0	0	0	0	1	2	1	4	2
Other Gastrointestinal Tract	625	409	216	1	0	1	0	1	1	1	0	5	4	9	0
Trachea, Bronchus & Lung	2,642	1,553	1,089	0	0	0	0	0	0	1	0	2	7	9	14
Other Respiratory	94	71	23	0	0	0	0	0	0	0	0	1	0	0	1
Bone & Connective Tissue	108	57	51	4	2	4	3	0	0	2	0	0	0	3	1
Melanoma of Skin	142	90	52	0	0	2	0	0	0	2	2	4	3	4	4
Breast	834	10	824	0	0	0	0	0	4	0	9	0	17	0	38
Cervix Uteri	67	0	67	0	0	0	0	0	2	0	3	0	8	0	5
Corpus Uteri	73	0	73	0	0	0	0	0	0	0	1	0	0	0	0
Other Female Genital	359	0	359	0	0	0	0	0	0	0	1	0	3	0	8
Prostate	681	681	0	0	0	0	0	0	0	0	0	0	0	1	0
Other Male Genital	13	13	0	0	0	1	0	2	0	1	0	3	0	1	0
Urinary Bladder	241	159	82	0	0	0	0	0	0	0	0	0	1	1	1
Kidney & Other Urinary	262	177	85	1	0	0	0	0	0	0	0	2	0	3	3
Eye, Brain & Other Nervous System	257	151	106	5	4	2	0	2	0	1	1	6	7	12	9
Lymph Nodes	541	294	247	2	3	4	2	0	1	6	2	3	0	9	3
Leukemia	469	257	212	6	2	0	0	2	1	1	5	5	3	10	2
All Others	1,233	658	575	1	1	0	0	0	0	3	0	1	5	11	7
Total Cancer Deaths	10,731	5,679	5,052	22	12	14	5	9	11	19	27	41	64	92	108

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Note: Age groupings vary in this table; childhood cancers (0-19) are followed by 5-year groupings.
See Technical Notes at the end of this report for the individual sites included in each site group.

(Table continued on next page)

Table 17. Number of Cancer Deaths by Site Group, Age and Sex, Wisconsin, 1999 (Continued)

	AGE AND SEX																	
	45-49		50-54		55-59		60-64		65-69		70-74		75-79		80-84		85+	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Mouth & Pharynx	4	1	7	1	12	4	12	3	10	7	15	9	14	7	9	3	7	12
Stomach	10	0	4	1	12	4	10	2	13	9	21	13	10	11	28	15	14	14
Colorectal	22	15	34	12	33	23	51	30	78	60	90	68	109	87	88	81	82	177
Pancreas	8	5	12	10	25	17	26	16	31	38	60	40	43	53	35	64	27	56
Other Gastrointestinal Tract	23	2	21	7	27	11	44	11	51	22	78	37	55	42	52	34	40	45
Trachea, Bronchus & Lung	34	21	83	56	134	78	174	124	253	176	309	191	260	172	170	150	124	100
Other Respiratory	4	0	6	2	10	0	8	3	10	1	15	8	7	4	5	1	5	3
Bone & Connective Tissue	3	5	2	1	7	0	7	2	2	4	4	5	7	9	6	11	6	8
Melanoma of Skin	6	3	5	3	8	5	4	4	13	5	13	5	12	3	8	7	9	8
Breast	0	57	0	51	0	53	2	76	2	68	1	110	1	85	2	106	2	150
Cervix Uteri	0	5	0	8	0	4	0	4	0	4	0	4	0	8	0	5	0	7
Corpus Uteri	0	0	0	2	0	4	0	4	0	10	0	8	0	15	0	14	0	15
Other Female Genital	0	10	0	22	0	21	0	33	0	44	0	43	0	69	0	55	0	50
Prostate	1	0	6	0	18	0	22	0	39	0	91	0	135	0	160	0	208	0
Other Male Genital	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0
Urinary Bladder	1	1	5	2	9	1	7	4	14	7	26	11	38	15	28	9	30	30
Kidney & Other Urinary	5	1	13	5	15	6	12	11	23	8	33	11	28	17	27	9	15	14
Eye, Brain & Other Nervous System	14	8	14	7	10	6	19	7	20	11	21	18	14	12	6	6	5	10
Lymph Nodes	9	7	22	11	17	13	16	26	36	23	45	30	47	34	43	41	35	51
Leukemia	9	7	11	4	11	12	15	16	23	20	42	31	40	35	36	28	46	46
All Others	20	14	23	14	43	27	70	42	86	46	100	80	104	83	113	105	83	151
Total Cancer Deaths	174	162	268	219	392	289	499	418	704	563	965	722	924	761	817	744	739	947

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Note: Age groupings vary in this table; childhood cancers (0-19) are followed by 5-year groupings.
See Technical Notes at the end of this report for the individual sites included in each site group.

- Following incidence patterns, the mortality distributions above show that cancer deaths rise with age for most cancers. Seventy-three percent of 1999 cancer deaths occurred in those aged 65 or older.

Table 18. Number of Cancer Deaths by Race, Age and Sex, Wisconsin, 1999

AGE GROUP								
	0 - 14	15 - 24	25 - 44	45 - 64	65 - 74	75 - 84	85 +	TOTAL
MALES								
White	13	21	138	1,238	1,598	1,699	728	5,435
African American	1	1	19	80	56	37	9	203
American Indian	0	0	1	7	8	2	0	18
Asian/Pacific Islander	0	0	3	8	7	3	2	23
Total Males	14	22	161	1,333	1,669	1,741	739	5,679
FEMALES								
White	7	8	185	1,007	1,229	1,474	931	4,841
African American	2	0	22	65	47	24	12	172
American Indian	0	0	3	9	4	2	2	20
Asian/Pacific Islander	0	0	0	7	5	5	2	19
Total Females	9	8	210	1,088	1,285	1,505	947	5,052
TOTAL								
White	20	29	323	2,245	2,827	3,173	1,659	10,276
African American	3	1	41	145	103	61	21	375
American Indian	0	0	4	16	12	4	2	38
Asian/Pacific Islander	0	0	3	15	12	8	4	42
Total	23	30	371	2,421	2,954	3,246	1,686	10,731

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

- In general, African Americans died of cancer at a younger age than did whites in 1999. Approximately one-half of African American cancer deaths (both sexes) occurred before age 65, compared with only one-fourth of white cancer deaths.

Table 19. Cancer Deaths by Average Number of Months Between Diagnosis and Death and Age at Diagnosis, Wisconsin, 1999

PRIMARY SITE	AGE AT DIAGNOSIS IN YEARS							
	UNDER 65		65 - 74		75 - 84		85 AND OVER	
	Deaths	Months	Deaths	Months	Deaths	Months	Deaths	Months
Mouth & Pharynx	121	40.3	79	29.4	35	32.2	10	-
Stomach	86	17.0	71	20.4	74	16.3	28	10.9
Colorectal	348	43.7	362	37.9	323	26.9	164	20.3
Pancreas	127	12.3	148	8.2	153	5.8	51	3.1
Other Gastrointestinal Tract	162	14.9	155	15.3	146	11.2	44	5.0
Trachea, Bronchus & Lung	768	16.3	854	14.5	571	10.6	114	5.6
Other Respiratory	70	49.4	45	37.9	36	23.2	7	-
Bone & Connective Tissue	45	42.1	15	-	23	22.5	4	-
Melanoma of Skin	65	56.0	39	52.2	22	24.0	12	-
Breast	430	74.8	206	81.3	171	51.6	58	30.8
Cervix Uteri	49	61.6	13	-	10	-	5	-
Corpus Uteri	48	83.8	41	47.9	36	44.6	14	-
Other Female Genital	108	47.4	77	32.3	75	15.6	19	-
Prostate	127	85.0	316	81.4	284	59.1	66	29.1
Other Male Genital	13	-	1	-	4	-	0	-
Urinary Bladder	56	61.6	113	56.9	77	38.7	45	16.6
Kidney & Other Urinary	99	45.4	85	43.6	70	24.2	13	-
Eye, Brain & Other Nervous System	149	39.5	63	13.0	29	11.2	8	-
Lymph Nodes	143	60.1	94	46.0	92	23.9	45	8.4
Leukemia	205	43.0	164	38.1	158	25.3	68	15.8
All Others	120	27.4	113	12.1	144	10.3	61	5.1
Total	3,339	41.4	3,054	35.7	2,533	25.1	836	14.9

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: This table includes cancer deaths (where cancer was listed as the underlying cause of death on the death certificate) that occurred among Wisconsin residents in 1999 and matched a reported cancer diagnosis filed with the Wisconsin Cancer Reporting System since 1978. *Each tumor is counted separately for persons with multiple tumors.* See Technical Notes on page 51 for the criteria used to determine a match between the incidence and death reports. Average months-to-death based on fewer than 20 deaths are omitted because of potential large random fluctuations. See Technical Notes at the end of this report for the individual sites included in each major site group.

- For 1999 cancer deaths, the average number of months from the time of diagnosis until death decreased as age at diagnosis increased: 41 months for cases diagnosed before age 65, to 15 months for cases diagnosed at ages 85 and older.

Table 20. Cancer Deaths by Average Number of Months Between Diagnosis and Death and Stage of Disease at Diagnosis, Wisconsin, 1999

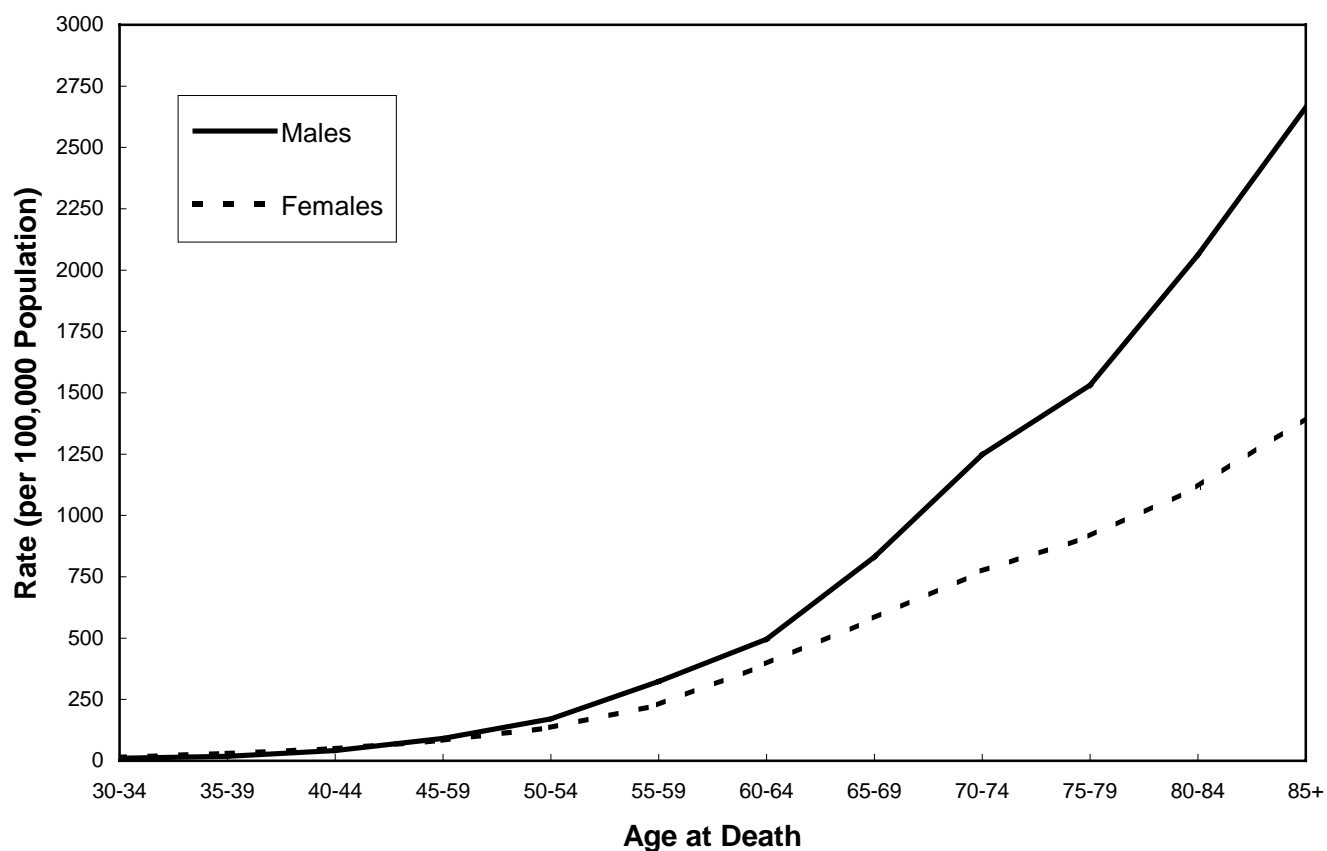
PRIMARY SITE	STAGE OF DISEASE							
	IN SITU & LOCAL		REGIONAL		DISTANT		NOT STATED	
	Deaths	Months	Deaths	Months	Deaths	Months	Deaths	Months
Mouth & Pharynx	78	46.9	130	30.2	21	15.6	16	-
Stomach	41	24.3	106	25.5	85	5.6	27	9.3
Colorectal	235	62.4	471	37.3	399	15.5	92	40.7
Pancreas	59	10.0	148	10.0	221	5.0	51	39.0
Other Gastrointestinal Tract	126	16.2	146	12.2	166	8.7	69	19.9
Trachea, Bronchus & Lung	387	27.5	656	16.6	1,096	7.2	168	12.7
Other Respiratory	65	52.3	58	29.2	15	-	20	33.8
Bone & Connective Tissue	33	45.3	16	-	26	12.7	12	-
Melanoma of Skin	78	53.8	21	43.3	23	11.0	16	-
Breast	316	80.9	349	74.6	141	29.6	59	63.5
Cervix Uteri	25	83.2	31	52.3	17	-	4	-
Corpus Uteri	68	77.9	37	47.1	26	11.0	8	-
Other Female Genital	38	58.5	75	38.8	142	24.0	24	25.5
Prostate	391	79.1	134	78.6	167	43.9	101	63.7
Other Male Genital	5	-	4	-	9	-	0	-
Urinary Bladder	174	63.5	64	20.7	32	11.8	21	41.3
Kidney & Other Urinary	63	77.4	56	40.5	130	12.6	18	-
Eye, Brain & Other Nervous System	174	27.1	40	29.5	8	-	27	39.7
Lymph Nodes	54	54.0	62	32.2	170	33.1	88	56.3
Leukemia	0	-	0	-	595	35.5	0	-
All Others	30	73.3	23	22.7	171	10.0	214	9.4
Total	2,440	55.0	2,627	35.0	3,660	15.1	1,035	33.0

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: This table includes those cancer deaths (where cancer was listed as the underlying cause of death on the death certificate) that occurred among Wisconsin residents in 1999 and matched a reported cancer diagnosis filed with the Wisconsin Cancer Reporting System since 1978. *Each tumor is counted separately for persons with multiple tumors.* See Technical Notes on page 51 for the criteria used to determine a match between incidence and death reports. Average months-to-death based on fewer than 20 deaths are omitted because of potential large random fluctuations. See Technical Notes at the end of this report for the individual sites included in each major site group.

- For 1999 cancer deaths, the average survival time was more than three times as long when the cancer was diagnosed at the local stage (55 months) as when the cancer was diagnosed at the distant stage (15 months).

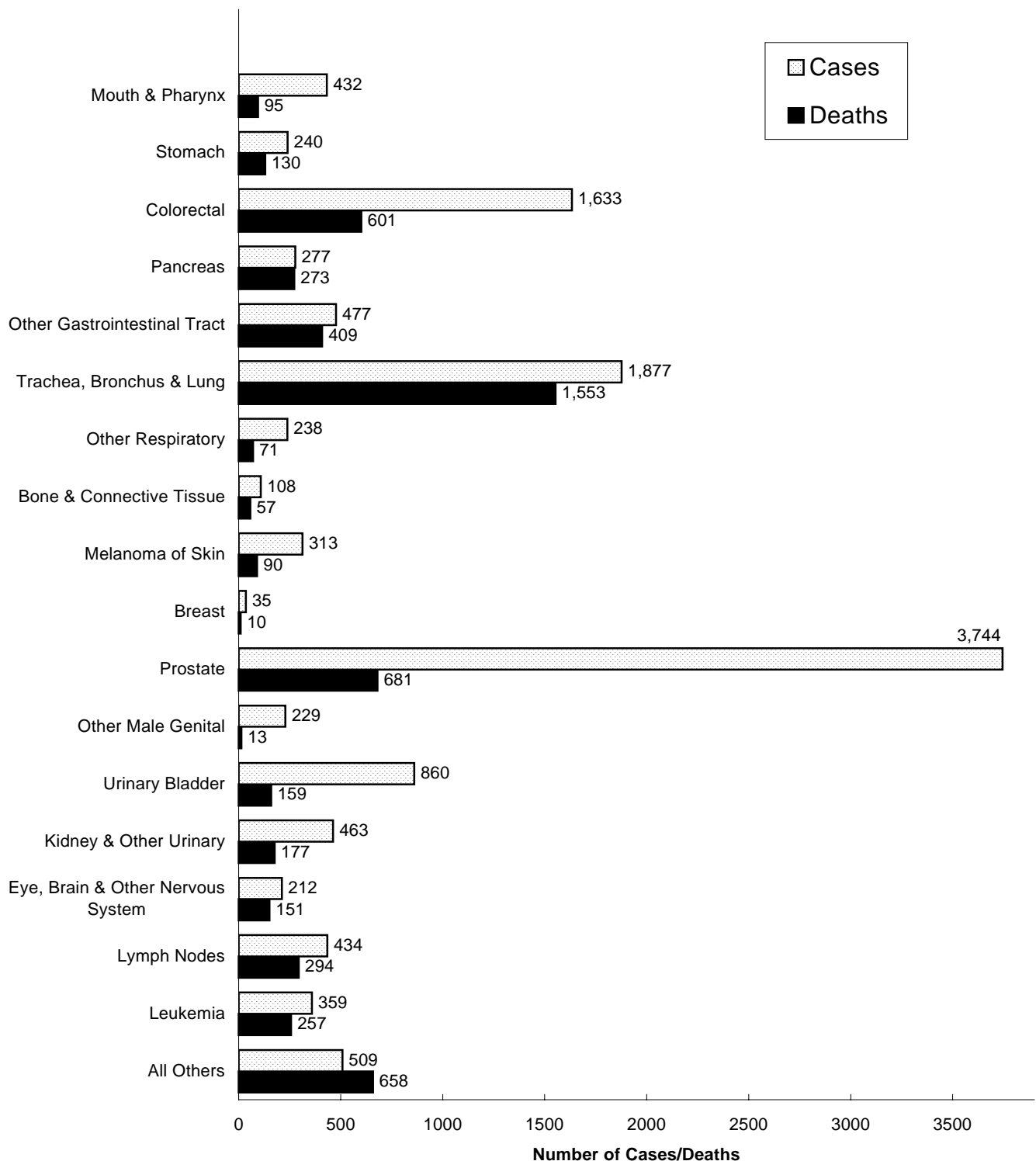
Figure 4. Age-Specific Cancer Mortality Rates, by Sex, Wisconsin, 1999



Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

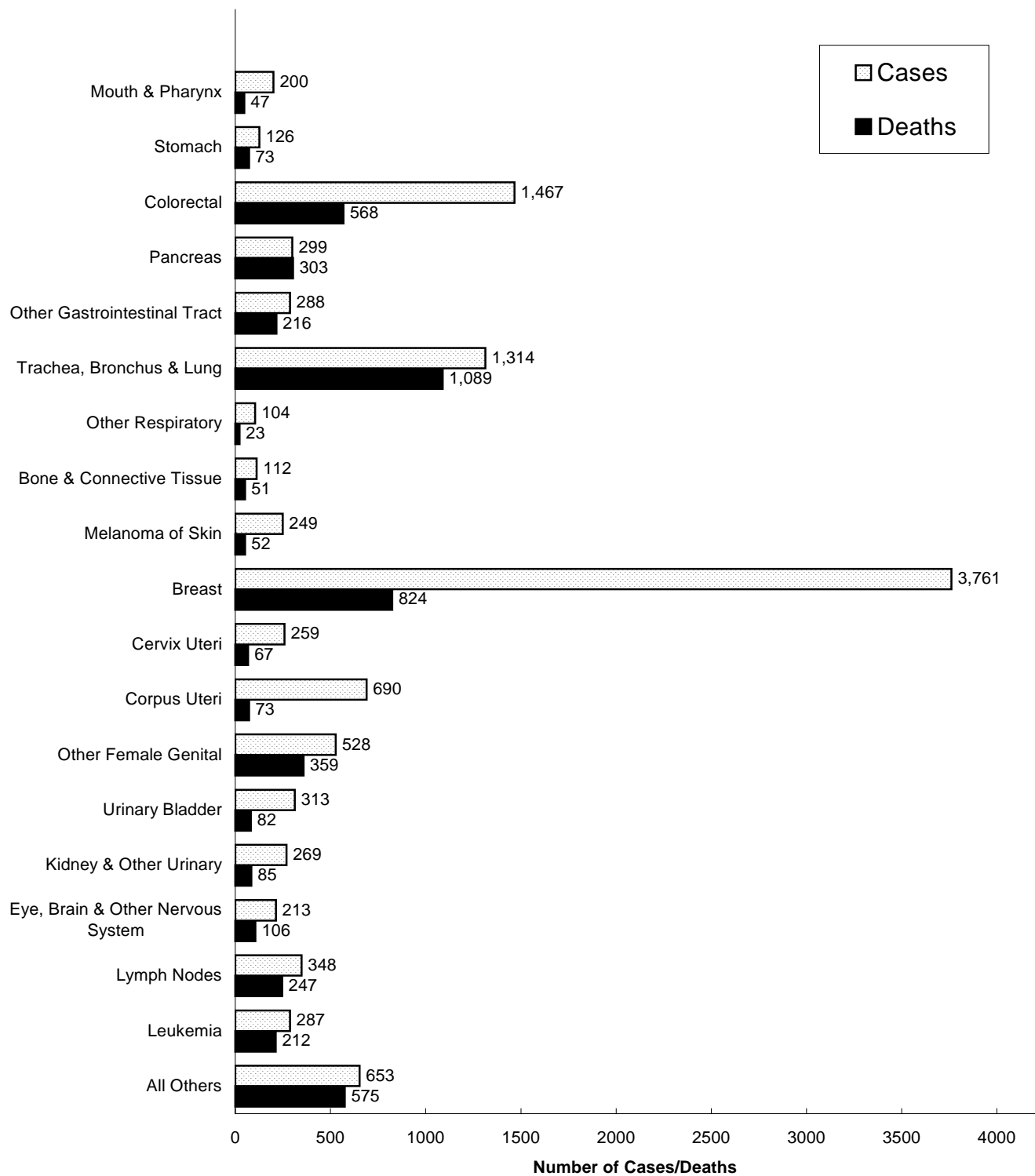
- Cancer mortality rates rise steadily with age for both males and females. After age 50, the male mortality rate is higher than the female mortality rate; the difference increases sharply with age.

**Figure 5. Number of *Invasive* Cancer Cases and Deaths by Site Group:
Males, Wisconsin, 1999**



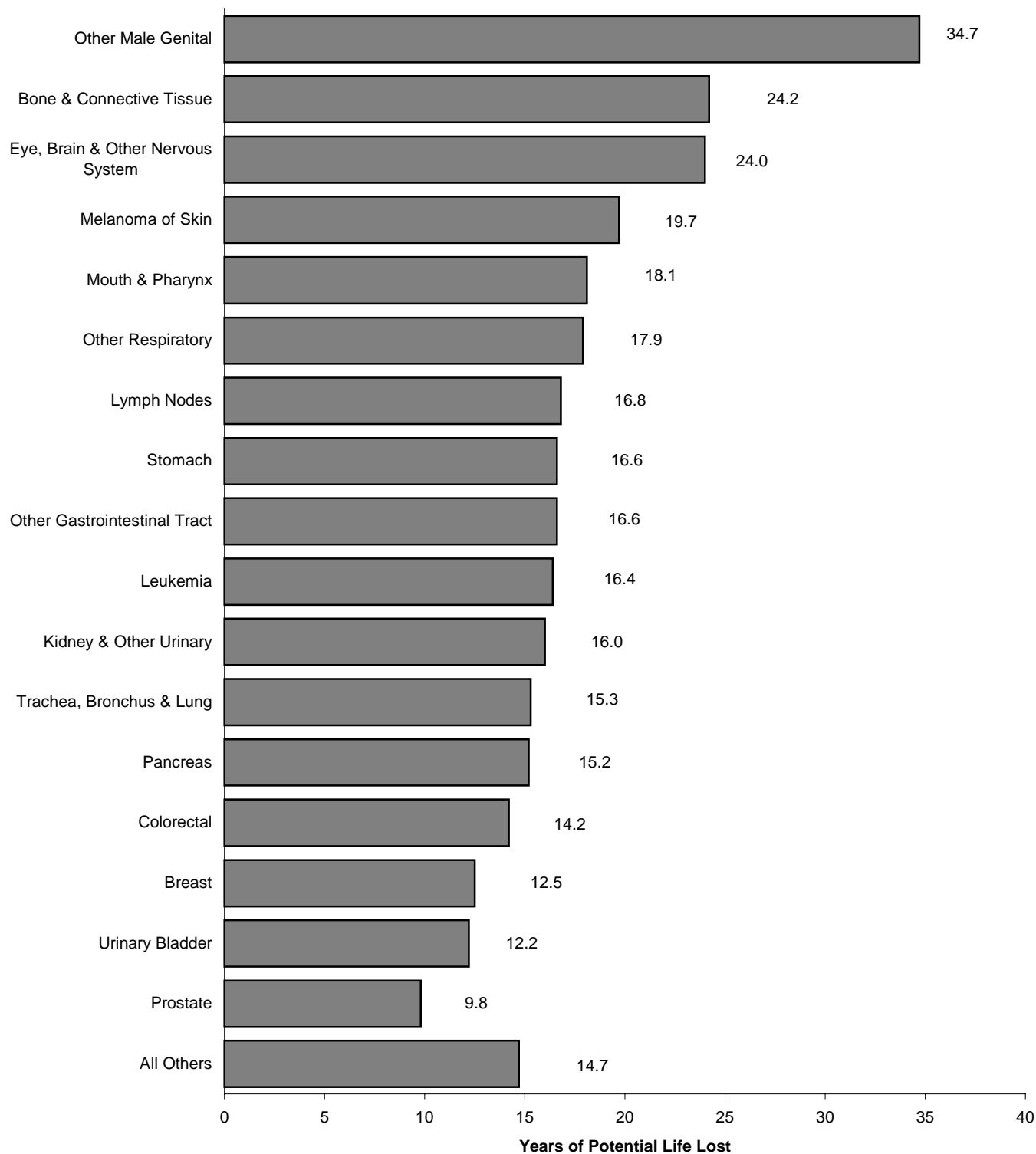
Source: Wisconsin Cancer Reporting System and the 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services. See Technical Notes on page 53 for incidence to mortality comparison information.

**Figure 6. Number of *Invasive* Cancer Cases and Deaths by Site Group:
Females, Wisconsin, 1999**



Source: Wisconsin Cancer Reporting System and the 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services. See Technical Notes on page 53 for incidence to mortality comparison information.

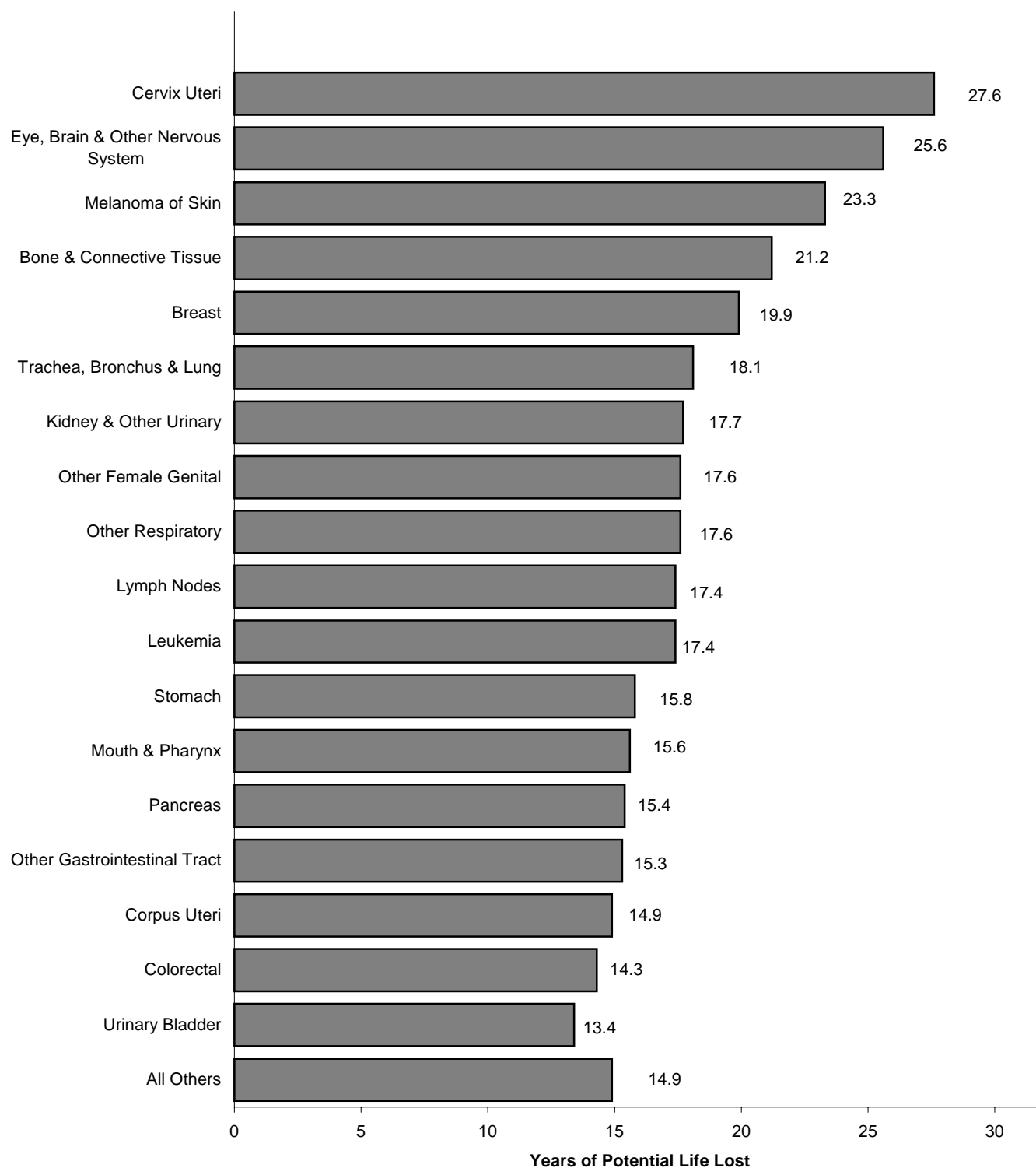
Figure 7. Average Years of Potential Life Lost Due to Cancer Mortality by Site Group: Males, Wisconsin, 1999



Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Note: See pages 51 and 54 for information on calculating the average years of potential life lost.

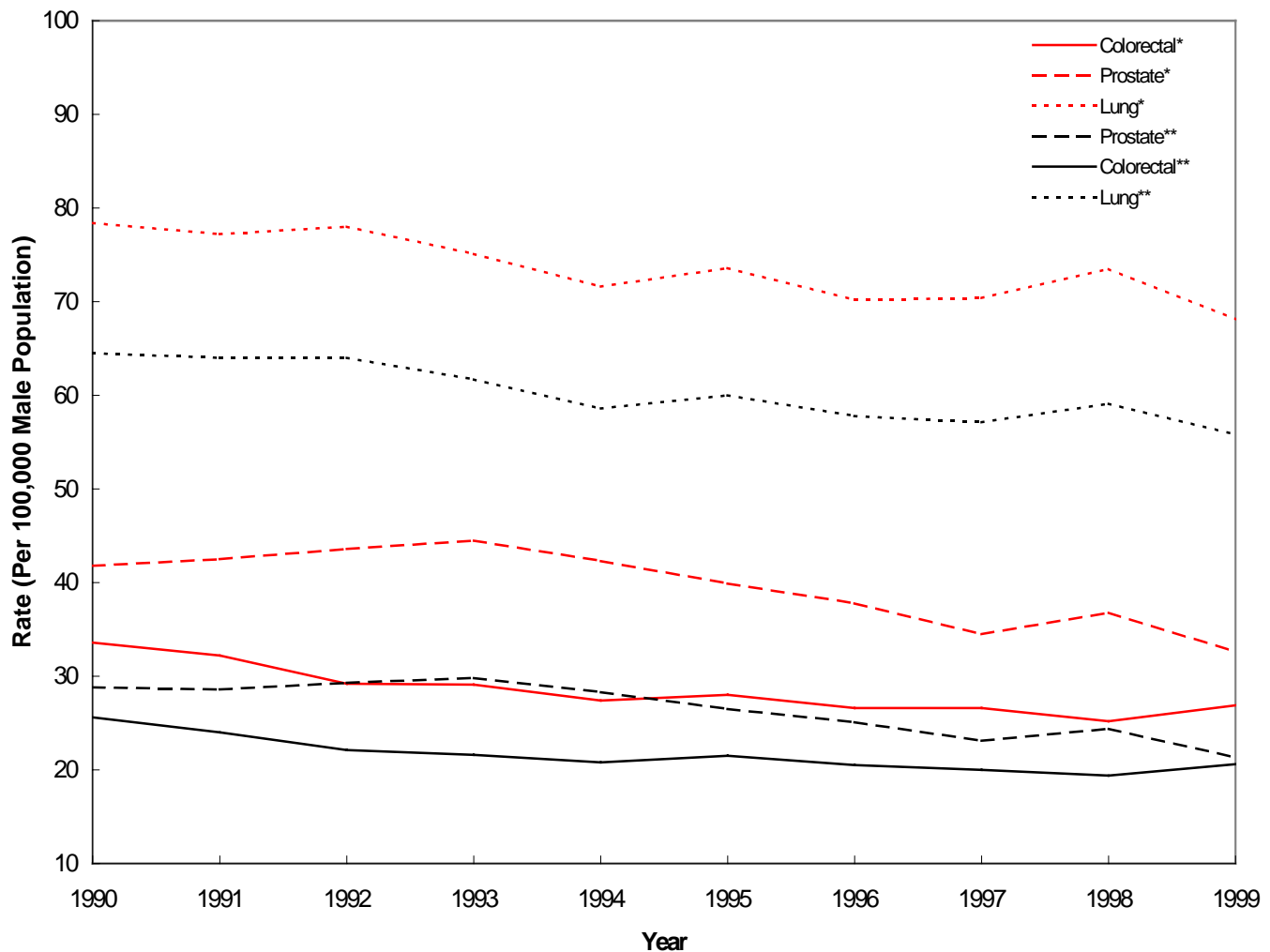
**Figure 8. Average Years of Potential Life Lost Due to Cancer Mortality by Site Group:
Females, Wisconsin, 1999**



Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Note: See pages 51 and 54 for information on calculating the average years of potential life lost.

Figure 9. Male Cancer Mortality Rates, Age-Adjusted to the 1970 and 2000 Standard Populations, Wisconsin, 1990-1999

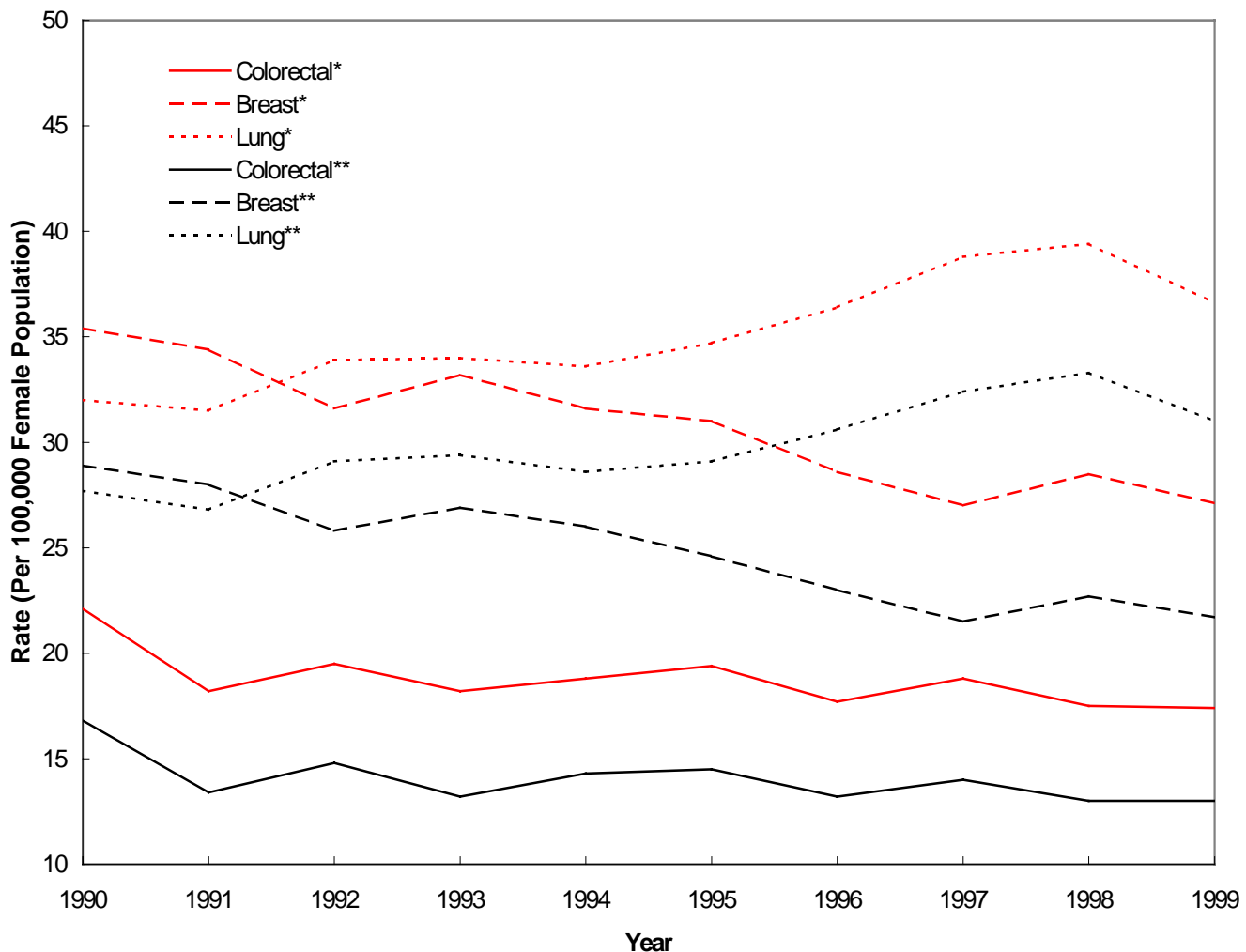


Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

* Rates age-adjusted to the 2000 U.S. standard population.

** Rates age-adjusted to the 1970 U.S. standard population.

Figure 10. Female Cancer Mortality Rates, Age-Adjusted to the 1970 and 2000 Standard Populations, Wisconsin, 1990-1999



Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

* Rates age-adjusted to the 2000 U.S. standard population.

** Rates age-adjusted to the 1970 U.S. standard population.

Technical Notes

Cancer Reporting Statute (s. 255.04, Wisconsin Statutes)

- (1) Any hospital, as defined under s. 50.33(2), Wis. Stats., any physician and any laboratory certified under 42 USC 263a shall report information concerning any person diagnosed as having cancer or a precancerous condition to the department as prescribed by the department under sub. (2).
- (2) The department shall prescribe:
 - (a) The form on which the report under sub. (1) shall be submitted.
 - (b) The time schedule under which the report under sub. (1) shall be submitted.
 - (c) The types of cancer and precancerous conditions to be reported under sub. (1).
- (3) Any information reported to the department under sub. (1) or (5) which could identify any individual who is the subject of the report or the physician submitting the report shall be confidential and may not be disclosed by the department except to the following:
 - (a) A central tumor registry in another state if the individual who is the subject of the information resides in the other state.
 - (b) A national tumor registry recognized by the department.
- (4) The report of information under sub. (1) may not be construed as a violation of any person's responsibility for maintaining the confidentiality of patient health care records, as defined under s. 146.81(4).
- (5) The department may, to the extent feasible, collect information related to the occupation of cancer patients in order to fulfill the purpose of s. 250.04 (3)(b)4.

Administrative Rules: Hospital Cancer Reporting (HSS 124.05 (h))

Every hospital shall report to the department all malignant neoplasms that are diagnosed by the hospital and all malignant neoplasms diagnosed elsewhere if the individual is subsequently admitted to the hospital. The report of each malignant neoplasm shall be made on a form prescribed or approved by the department and shall be submitted to the department within 6 months after the diagnosis is made or within 6 months after the individual's first admission to the hospital if the neoplasm is diagnosed elsewhere, as appropriate. In this paragraph, "malignant neoplasm" means an *in situ* or invasive tumor of the human body, but does not include a squamous cell carcinoma or basal cell carcinoma arising in the skin.

(See page 48 for more information regarding WCRS record confidentiality protection measures.)

Neoplasm Record/Report: Required Data for 1999 Diagnoses

Patient Demographics

Last Name	Zip Code
First Name	County of Residence
Middle Name	Race
Maiden Name	Ethnicity
Sex	Occupation/Industry (text)
Street Address	Date of Birth
City	Marital Status
State	Social Security Number

Administrative Fields

Medical Record Number	Facility Referred From
Tumor Registry Accession Number (if applicable)	Facility Referred To
CRS Facility Code	Class of Case
Follow-up Physician Number	

Tumor Characteristics

Sequence Number	Cell Type
Date of First Contact	Grade
Date of Discharge	Tumor Size
Date of Diagnosis	Metastatic Sites (to date)
Primary Site/Subsite	Stage of Disease (at diagnosis)
Laterality	Diagnostic Confirmation

Treatment Fields

Cancer Directed Treatment
Non-Definitive Treatment
Treatment Date

Note: Per federal cancer reporting requirements established by the National Program of Cancer Registries, the above data are required on each case submitted to the Wisconsin Cancer Reporting System. Data can be submitted by filling out the Neoplasm/Record report form provided by WCRS or by submitting electronic data using a WCRS-approved record layout format.

Cancer Reporting System Operating Procedures

Data Collection. The Wisconsin Cancer Reporting System receives hospital information from medical records departments or tumor registries. Each records department or registry has two major responsibilities. The first is case finding. All of the hospital's newly diagnosed and/or admitted cancer cases need to be identified. As part of this identification, medical records as well as radiology, pathology, outpatient clinic and autopsy reports need to be examined to assure complete reporting. The second responsibility of the registry or records department is to report the cases identified from one or more of the above-mentioned processes to WCRS. Reporting is done either by completing the one-page Neoplasm Report Form, or by submitting electronic diskettes using a pre-approved record layout.

Physicians and freestanding clinics report (1) all cancer cases they treat, and (2) those cases they diagnose if they are not referred to a Wisconsin hospital for treatment within two months of the diagnosis date. There were 1,798 clinic-only reported cases in 1999 (7 percent of the total cases reported for that year). This is a 32 percent increase from the number of clinic-only cases reported in 1997 (1,216 cases) and a 10 percent increase from 1998 (1,615 cases).

Reports for Wisconsin residents receiving care in Alaska, Arkansas, California, Colorado, Florida, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Michigan, Mississippi, Missouri, Montana, Texas, Washington, West Virginia and Wyoming are reported to WCRS by the central registries for those states. Minnesota hospitals with substantial numbers of Wisconsin resident cancer patients report Wisconsin cases directly to WCRS. Data supplied by Minnesota facilities and reports from other out-of-state registries accounted for just under 3 percent of the cases in this report (742 cases).

Finally, WCRS matches its records to the Wisconsin resident annual death file to add mortality information for persons who have previously been reported to WCRS. From that match, WCRS identifies cases where cancer is indicated on the death certificate but no report exists in the registry. For those cases, WCRS queries the medical source listed on the death certificate (the hospital, out-of-state registry, physician or coroner who certified the death) to provide information about the cancer case that was not previously reported to WCRS. **Wisconsin Cancer Incidence and Mortality, 1999** includes 335 cases originally diagnosed during 1999 that were reported as a direct result of the death certificate confirmation process.

Supplemental Data Sources. Mortality data were obtained from the 1999 Wisconsin resident death file. The mortality tables are based on deaths that occurred in 1999 for which the underlying cause of death was a reportable cancer. Certificates for out-of-state deaths of Wisconsin residents were provided by the states where the deaths occurred. Months between diagnosis and death were calculated from the date of death shown on the death certificate and the date of diagnosis from the case reports.

Wisconsin population estimates were produced by the Bureau of Health Information. BHI compiles its estimates by reconciling those from the Wisconsin Department of Administration, Demographic Services, against the mid-year age and sex proportional distribution from the Population Estimates Branch of the U.S. Bureau of the Census to produce mid-year, county-level and state-level age-by-sex estimates.

Reportable Cases. All primary malignant neoplasms are reportable except basal cell and squamous cell carcinoma of the skin. Benign tumors, premalignant conditions and diseases secondary to the neoplastic process are not reportable.

The 1999 incidence tables are based on Wisconsin resident cases of reportable cancer first diagnosed during 1999 and reported to the Cancer Reporting System by November 15, 2001.

Record Confidentiality. In addition to protecting data release as required by the Cancer Reporting Statute (see page 45), WCRS follows strict guidelines once data are received to maintain the confidentiality of patient records, in-house. Procedures include, but are not limited to, securely storing all records on the Department computer network; limiting computer access for confidential data items to only the WCRS staff; and locking up all paper records, diskettes and paper or electronic output that include confidential data items. More detailed information regarding confidentiality may be obtained by contacting WCRS.

Quality Assurance. WCRS staff routinely edit cancer reports for completeness and logical consistency, and make periodic checks for consistency among multiple reports received for the same case. If an inconsistency is found, queries are sent to the reporting agent and corrections are made in the records. If more than one report is on file for the same person or tumor, the records are matched using national case-merging protocol. This protocol allows for the most accurate and complete information on the description of the tumor cell type, extent of disease at diagnosis, method of diagnostic confirmation, types of definitive therapy, race of patient, etc.

Completeness and Timeliness of Reports. The 1999 data are estimated to be 95 percent complete. Statewide training sessions offered by WCRS to the reporting facilities focus on increasing complete casefinding, timeliness, and compliance with the cancer reporting statute and administrative rule.

The North American Association of Central Cancer Registries (NAACCR) recently awarded WCRS its Gold Standard for 1998 data quality, completeness and timeliness. This was the fourth year that WCRS received national recognition from NAACCR for achieving high standards in data preparation. WCRS received the Gold Standard for 1995 and 1996 data and the Silver Standard for 1997 data. WCRS has recently submitted the 1999 data to NAACCR for evaluation.

Multiple Tumor Determination. When apparent multiple neoplasms of the same primary site in one patient exist simultaneously or over a period of time, WCRS applies the following rules to determine whether more than one independent primary tumor exists:

- 1) A single lesion with multiple histologic types is considered a single primary.
- 2) An independent primary cancer of the same histologic type as one diagnosed in the same site more than one year earlier is considered a separate primary cancer, unless the physician states that it is a recurrence of the earlier cancer.
- 3) Simultaneous multiple lesions of the same histologic type within the same primary site are considered a single primary cancer.
- 4) Multiple lesions of different histologic types within a single site, whether occurring simultaneously or at different times, are considered separate primaries.

- 5) Each side of a paired organ is considered a separate site with the following three exceptions: simultaneous ovarian tumors, simultaneous Wilm's tumors (of the kidney) and simultaneous retinoblastomas (of the eye). These exceptions are coded as a tumor of the paired organ with bilateral presentation (involvement of the tumor in both sides of a paired organ). Aside from the above exceptions, lesions in both sides of a paired organ are considered separate tumors whether occurring simultaneously or at different times unless a physician determines a) one side is metastatic from the other or b) the tumor is presenting bilaterally.

Incident tumors are classified according to the **International Classification of Diseases for Oncology, Second Edition** (ICD-O2). For specific ICD-O2 codes used in the site groups and major site groups, see "Coding of Reported Cases: ICD-O2 Site Codes" and "Coding of Reported Cases: ICD-O Cell Type Codes" on pages 55-58. Tumor codes in the mortality section are classified using the **International Statistical Classification of Diseases and Related Health Problems, Tenth Revision** (ICD-10). Specific ICD-10 codes for the respective site groups are listed on page 59.

Please note that all tables in this year's report (except Table 1 and Supplemental Table D) combine colon, rectum and recto-sigmoid cancers into one site group: colorectal. Prior to the 1998 report, this grouping was used only in tables with the *major* site groupings. This change will make Wisconsin data more comparable to national data and data from other states.

While the ICD-O2 is used to assign both a primary site code *and* a cell type code to every tumor, ICD-10 codes reflect either site *or* cell type. The ICD-10 has three skin tumor classifications, one for melanomas of the skin, one for Kaposi's sarcoma of the skin and one for all other skin tumors combined. Basal cell and squamous cell carcinomas of the skin, which are not reportable to the Cancer Reporting System, make up the majority of these "other" skin tumors. Only reportable nonmelanoma skin cancers are included in the *incidence* tables in the site group "All Others." In 1999, 104 reportable cases of nonmelanoma skin cancer were diagnosed. Deaths from all nonmelanoma skin cancers are included in the "All Others" site group in the *mortality* tables in this report.

Definitions

Patient Residence. Tables 5 and 6 and Supplemental Tables A and B are based on patient residence at the time of diagnosis. WCRS collects postal zip code and county of residence for cancer cases rather than minor civil division of residence (village, town or city). For Supplemental Table B, zip codes and county boundaries are used to approximate city of residence. Information about the boundaries used to define city of residence is available upon request. Tables 15 and 16 and Supplemental Table C are based on the deceased's county of residence at the time of death.

Patient Race. Tables 3, 4, 8, 13, 14 and 18 present cancer information by race. The race categories used in this report are 1) white, 2) African American 3) American Indian, 4) Asian/Pacific Islander and 5) unknown. The specific race categories are as follows:

White
African American
American Indian, Aleutian, or Eskimo
Asian/Pacific Islander

Chinese	Guamanian, NOS
Japanese	Polynesian, NOS
Filipino	Tahitian
Hawaiian	Samoan
Korean	Tongan
Asian Indian, Pakistani	Melanesian, NOS
Vietnamese	Fiji Islander
Hmong	New Guinean
Kampuchean	Other Asian, inc. Asian, NOS
Thai	and Oriental, NOS
Micronesian, NOS	Pacific Islander, NOS
Chamorroan	
Unknown	

Note: Hispanic ethnicity is not provided as a separate category in this report. Special requests for combined years of data are available by contacting WCRS.

Stage of Disease at Diagnosis. The stage of disease at diagnosis refers to how far a cancer had spread from the site of origin when it was diagnosed. WCRS cancer data are coded according to summary guidelines of NCI's Surveillance Epidemiology and End Results (SEER) program. The following staging definitions are used in this report:

<i>In Situ</i>	A small cancer confined to the cells in which the cancer began, that does not invade or penetrate the surrounding tissue.
<i>Localized</i>	An invasive tumor (penetrated the surrounding tissue) that is confined to the organ of origin.
<i>Regional</i>	A tumor that has spread beyond the organ of origin to adjacent organs or tissue by direct extension (penetrated directly into surrounding organs or tissues), or through the regional lymph nodes (through the lymphatic system), or both, but appears to have spread no further.
<i>Distant</i>	A tumor that has spread to parts of the body remote from the primary organ, or a systemic malignancy (such as cancers in the blood, bone marrow, or lymph system).
<i>Unknown</i>	Insufficient information available to determine the stage of disease at diagnosis.

Type of Diagnostic Confirmation

The type of diagnostic confirmation reported indicates the method used to provide the most accurate evidence for the diagnosis of cancer. Microscopic confirmation is required to identify cell type, the most sensitive measure of the *type* of cancer. The following definitions and examples are used in coding diagnostic confirmation.

Positive Histology - Microscopic diagnosis based upon specimen from a biopsy or frozen section of tissue.

Positive Cytology or Blood Confirmation - Diagnosis based upon microscopic examination of cells (as opposed to tissue).

Positive Microscopic Confirmation, Not Otherwise Specified - Microscopic diagnosis with the method unspecified.

Laboratory Test/Marker Study - Clinical diagnosis based on a laboratory test or a tumor marker study.

Surgery Observation Without Microscopic Confirmation - Diagnosis made on the basis of visualization or palpation during surgery.

Imaging - Includes chest x-rays, bone scans, mammograms, MRIs, upper GI series, etc.

Other Clinical Methods - Diagnosis based on medical history, physical examination and other clinical methods not mentioned above.

Autopsy - Reported when the cancer is first discovered or confirmed upon autopsy. An autopsy may involve microscopic examination of tissues or cells.

Incidence/Death Case Matching (Tables 19 & 20). Tables 19 and 20 are derived from incidence records in the WCRS registry (with tumors diagnosed since 1978) matched against the 1999 Wisconsin resident death file and updated with information from the death certificate. The most important matching criteria are full name, date of birth and social security number. If any of the matched persons had more than one primary tumor reported in the WCRS registry (a breast cancer and a cervical cancer, for example), then each tumor is counted as a separate case in the tables.

Average Years of Life Lost. The “years of potential life lost” is the difference between actual age at death and the expected age at death for persons of a given age and sex. The *average* years of life lost by sex and primary site group is the *sum of all years ‘lost’* for persons of the same sex and type of cancer death, divided by the *number of deaths* for that sex and cancer type. The expected age at death used for **Cancer Incidence and Mortality, 1999** was taken from the statewide Wisconsin life tables for 1997-99 (prepared by the Bureau of Health Information).

Rates. Following CDC standards, rates in this report are age-adjusted to the Year 2000 U.S. standard population (see page 62). For comparability with previous reports, Tables 2, 12 supplemental Table E and Figures 2, 3, 9 and 10 also contain rates calculated to the 1970 population (the previous standard recommended for cancer data prior to 1999). Age-adjusted rates take into account the diverse age distributions between populations. Valid comparisons between age-adjusted rates can be made, provided the same standard population and age groups have been used in the calculation of the rates. Age-adjusted rates for this report were produced using the direct method of adjustment. With this method, the population is first divided into reasonably homogeneous age groups (five-year age groups for this report). The age-specific rate is calculated for each age group, and each age-specific rate is weighted by multiplying it by the proportion of the 1970 or Year 2000

standard population in the respective age group. The age-adjusted rate is the sum of the weighted age-specific rates.

The age-adjusted rates in **Cancer Incidence and Mortality, 1999** were calculated using five-year age intervals. Age intervals used to calculate age-adjusted rates for annual reports prior to 1994 varied, and documentation for each publication should be consulted before comparing published rates.

Though crude rates are not reported in any of the **Cancer Incidence and Mortality, 1999** tables, they can be calculated from the population tables on pages 60 and 61. The reliability of crude rates can be measured by comparing the standard error for each rate. The standard error is estimated by dividing the crude rate by the square root of the number of cases/deaths upon which the rate was based. This gives the standard error for a rate per 100,000 population. The 95% confidence interval can be determined by multiplying the standard error times 1.96.

Age-specific rates can also be calculated using the same tables. The age-specific rates in Figures 1 and 4 are the number of events per 100,000 persons in each sex and five-year age range.

Year 2000 Population Standard for Age-Adjusting Cancer Incidence/Mortality Rates in Wisconsin

Background. In August 1998, the U.S. Department of Health and Human Services (DHHS) adopted a policy to change the population standard for age-adjusting death rates to the 2000 U.S. population. This policy reflects the outcome of two workshops, held in 1991 and 1997, sponsored by the National Center for Health Statistics with participation from the National Academy of Sciences, the National Institutes of Health, the Centers for Disease Control and Prevention, academia and the states. The DHHS Secretary has directed all Federal agencies to use the Year 2000 population standard for all age-adjusted rate calculations beginning with 1999 health data.

Purpose. The purpose of the new DHHS policy to change the population standard was to ensure that (1) age-adjusted death rates used in all DHHS systems are comparable, and (2) age-adjusted death rates reflect a more contemporary population structure.

Effect of the change. Changing to the Year 2000 population standard affects the magnitude of age-adjusted incidence and mortality rates because the age distributions of the 1970 and 2000 populations differ, and the standard population serves as the weights for calculating age-adjusted rates. In the 30 years between 1970 and 2000, the U.S. population aged considerably. Greater survival at older ages is one factor that resulted in a higher concentration of population in the middle and older age groups in the Year 2000 standard. (The largest age group in the 1970 population standard was ages 10-14, while in the Year 2000 standard it was ages 40-44.) The tables on page 60 show the difference between the 1970 and 2000 standard populations in the weights used for each age group.

The following example illustrates the difference in the rates adjusted to the two standards, using the same number of cancers for the rate calculation. There were 23,920 invasive cancers diagnosed in 1999. Calculating the age-adjusted rate using the 1970 population standard produces a rate of 376 cases per 100,000 population. Age-adjusting those 23,920 cases to the Year 2000 standard population produces a rate of 438 cases per 100,000 population.

Age-adjusted rates calculated before implementation of the year 2000 standard are not comparable to rates using the new standard. Rates based on different standard populations should not be compared. Use of the Year 2000 standard will result in age-adjusted rates substantially larger than those based on the 1970 standard. See Tables 2 and 13 for 1999 cancer incidence and mortality rates age-adjusted to the two standard populations (1970 and 2000).

Caveats/Limitations

Geographic Boundaries. Two factors affect interpretation of geographic location tabulations. First, many counties have a very small number of new cancer diagnoses or deaths in a year, resulting in site-specific frequencies in the single digits. Such small numbers may easily double or triple (or decrease by equivalent amounts) from year to year. When groups of related counties or primary sites are combined to produce larger number of events the rates become more stable. Even at the statewide level, however, some random fluctuation is expected.

Second, reporting completeness and/or timeliness may vary by region. The largest reporting variations relate to out-of-state diagnosis and treatment of patients who live in the sparsely populated counties along the Wisconsin/Minnesota border and are seen in Minnesota hospitals. The inclusion of reports from nearby Minnesota hospitals, starting in 1992, reduced this problem. While only 1 percent of the 1999 Wisconsin resident cases submitted to WCRS were reported by Minnesota facilities, the effect for some border counties is quite large. The contribution of Minnesota reports to 1999 county incidence is as follows: Douglas (94%), Sawyer (52%), Bayfield (35%), Washburn (31%), Ashland (30%), Buffalo (26%), Iron (26%), Pierce (22%), Burnett (19%), Pepin (6%) and Polk (5%). In addition, Minnesota reports contributed to less than 5 percent of the total incidence counts in 10 other counties. Reporting by Minnesota hospitals is a voluntary process (established through memoranda of understanding which protect patient confidentiality) and is not covered under Section 255.04, Wisconsin Statutes. Therefore, the number of reports sent to WCRS can vary greatly from year to year. Overall, fewer cases were received from Minnesota facilities for 1999 diagnoses than in previous years. This under-reporting of cases may have an effect on county incidence totals (the effect on regional/statewide totals is minimal).

Patient Race. Historically, differences among facilities in recording patient race (information not required in medical chart, entered by proxy, patient self-reporting) have led to a number of ambiguous or unknown race codes. As training and expanded codes have been introduced in recent years, the number of incidence cases reported with unknown race has decreased more than two-fold, from 518 in 1994 (over 2 percent of total reports) to 180 in 1999 (less than 1 percent of total reports). Race reporting is nearly complete on death certificates.

Incidence to Mortality Comparison. Figures 5 and 6 list the number of invasive cancer cases and deaths recorded for calendar year 1999, by site group. They are helpful when calculating incidence to mortality ratios (I/M) but they are not a direct indicator of survival rates. The deaths that occurred in 1999 were not always cases diagnosed in 1999 (diagnosis could have been at any time, including years prior to 1999). For example, on page 39, Figure 5 lists 432 cases and 95 deaths for the site group “Mouth and Pharynx.” This should *not* be interpreted as “432 cases were diagnosed in 1999; and *of those*, 95 died within that same year.”

Average Years of Life Lost. Life tables used to calculate potential average years of life lost for past **Wisconsin Cancer Incidence and Mortality** and earlier **Cancer in Wisconsin** reports have varied, and documentation for each publication should be consulted before comparing data between years. Sites with a smaller number of cases or deaths can have larger fluctuations in the average years of life lost.

In Situ Cervical Cancer Data. Comparison of *in situ* cervical cancer data over a wide range of years may be affected by changes in cytologic and pathologic classifications of pre-invasive cervical cancers. In particular, classification systems formerly distinguished between noninvasive malignant lesions and noninvasive pre-malignant or benign lesions; more recent classification systems combine these categories. Data are affected by changes in terminology among cytologists and pathologists. In addition, many local and national cancer programs no longer require reporting of *in situ* cervical cancers. Even though it was still reportable in Wisconsin (for 1999 cases), the elimination of this reporting requirement in other programs has resulted in some reduction in the number of these cases reported to WCRS. These changes have not affected reporting of *in situ* cancers of other sites.

CODING OF REPORTED CASES
ICD-O-2 Site Codes (1990 Code Version)

Page 1 of 3

PRIMARY SITE NAME	Major Site Group	Site Group	Individual Site
Lip			C00
Tongue			C01 - C02
Major Salivary Glands			C07 - C08
Gum			C03
Floor of Mouth			C04
Other & Unspecified Parts of Mouth			C05 - C06
Oropharynx			C09 - C10
Nasopharynx			C11
Hypopharynx			C12 - C13
Other Sites in Lip, Oral Cavity, & Pharynx			C14
Mouth and Pharynx			C00 - C14
Esophagus			C15
Stomach		C16	C16
Small Intestine			C17
Colon			C18
Rectum, Rectosigmoid Junction, & Anus			C19 - C21
Colorectal		C18 - C21	C18-C21
Liver & Intrahepatic Bile Ducts			C22
Gallbladder & Extrahepatic Bile Ducts			C23 - C24
Pancreas		C25	C25
Retroperitoneum & Peritoneum			C48
Other Within Digestive Organs & Peritoneum			C26
Other Gastrointestinal Tract		C15, C17, C22 - C24	
.....		C26, C48	
Other Gastrointestinal Tract		C15 - C17	
.....		C22 - C26, C48	
Nasal Cavities & Sinuses, Internal Ear			C30 - C31
Larynx			C32
Trachea, Bronchus, & Lung ..		C33 - C34	C33 - C34
Pleura			C38*
Thymus, Heart, & Mediastinum			C37 - C38*
Other Respiratory & Intrathoracic Sites			C39
Other Respiratory ..		C30 - C32	
.....		C37 - C39	
Respiratory		C30 - C39	

*Pleura sites are coded C38.4; heart and mediastinum sites are identified by the other C38.x codes

CODING OF REPORTED CASES
ICD-O-2 Site Codes (1990 Code Version)

Page 2 of 3

PRIMARY SITE NAME	Major Site Group	Site Group	Individual Site
Hematopoietic & Reticuloendothelial Systems, (except Leukemia*)			C42
Bone, Joints, & Articular Cartilage			C40 - C41
Connective, Subcutaneous, Other Soft Tissue			C49
Bone & Connective Tissue		C40 - C41	C49
Melanoma of Skin			Site code C44 if also Cell Type Code 872 - 879
Breast	C50	C50	C50
Uterus, NOS			C55
Cervix Uteri		C53	C53
Placenta			C58
Corpus Uteri		C54	C54
Ovary, Fallopian Tube, & Broad Ligament			C56 - C57**
Other & Unspecified Female Genital Organs			C51 - C52, C57**
Other Female Genital		C51 - C52	C55 - C58
Female Genital		C51 - C58	
Prostate		C61	C61
Testis			C62
Penis & Other Male Genital Organs			C60, C63
Other Male Genital		C60, C62 - C63	
Male Genital		C60 - C63	
Urinary Bladder		C67	C67
Kidney & Other Urinary Organs		C64 - C66, C68	C64 - C66, C68
Urinary Tract		C64 - C68	
Eye & Lacrimal Gland			C69
Brain			C71
Other & Unspecified Parts of Central Nervous System			C70, C72
Eye, Brain & Other Central Nervous System		C69 - C72	
Thyroid Gland			C73
Other Endocrine Glands			C74 - C75

*Leukemias are initially determined by the cell type code (see next page), and then defaulted to site code C42.1

**Broad ligament and ovary sites are coded C57.0 and C57.1, respectively; "other and unspecified female genital" sites are the remaining C57.x codes

CODING OF REPORTED CASES
ICD-O-2 Site Codes (1990 Code Version)

Page 3 of 3

PRIMARY SITE NAME	Major Site Group	Site Group	Individual Site
Lymph Nodes		C77	C77, Except Cell Type Code 965 - 966
Hodgkin's Disease			Cell Type Code 965 - 966
Lymphoid Leukemia			Cell Type Code 982
Myeloid Leukemia			Cell Type Code 986
Other Leukemia.....			Cell Type Code 980, 981 983 - 985, 987 - 994
Leukemia.....			Cell Type Code 980 - 994
Leukemia & Lymph Nodes.....			Cell Type Code 980 - 994 plus Site Code C77
Other & Ill-defined Sites (Includes Reportable Nonmelanoma Skin Sites)			C44, C47, C76
All Others (Includes Reportable.....			C42, C44, C47
Nonmelanoma Skin Sites, Endocrine,			C73 - C76
Nonleukemic Hematopoietic &.....			C80
Reticuloendothelial Sites , Peripheral Autonomic Nerves and Ill-Defined and Unknown Sites)			
All Others (Includes Mouth &.....			C00 - C14
Pharynx, Reportable Nonmelanoma			C40 - C44, C47
Skin Sites, Endocrine,.....			C49, C69 - C76
Nonleukemic Hematopoietic			C80
& Reticuloendothelial Sites, Peripheral Autonomic Nerves, Eye, Brain and Central Nervous System Sites and Ill-Defined and Unknown Sites)			
Unknown Primary Site.....			C80

Note: Basal and squamous cell carcinoma of skin sites and nonmalignant neoplasms are not reportable. Extra-nodal lymphomas are coded to their respective primary sites rather than to lymph nodes.

CODING OF REPORTED CASES
ICD-O Cell Type Codes (Encompasses 1976 and 1990 Code Versions)

CELL TYPE GROUP	CODE
Small Cell/Oat Cell Carcinoma	804
Squamous Cell Carcinoma	807
Transitional Cell Carcinoma	812
Papillary Transitional Cell Carcinoma	813
Papillary Adenocarcinoma	826
Clear, Renal & Granular Cell Adenocarcinoma	831-832
Cystadenocarcinoma	844-847
Mucinous Adenocarcinoma	848
Ductal Adenocarcinoma	850
Medullary Adenocarcinoma	851
Lobular Adenocarcinoma	852
Other Specified Adenocarcinoma	815-820, 823-825 827-830, 833-838 840-842, 855
Other Adenocarcinoma	849, 853, 854
Adenocarcinoma, NOS	814, 821, 822
Carcinoma, Not Otherwise Specified (NOS)	801-802
Sarcoma, NOS and Osteogenic Sarcoma	880, 918, 919
Astrocytoma, NOS	940
Glioblastoma Multiforme	944
Germ Cell Neoplasms	906-909
Hodgkin's Disease	965-966
Non-Hodgkin's Lymphoma	959-964, 967-971, 975
Lymphoid Leukemia	982
Myeloid Leukemia	986
Other Leukemia	980-981, 983-985 987-994
Plasma Cell Tumors	973
Unknown Cell Type	800, 999
(Includes "No Microscopic Confirmation")	
All Others	803, 805, 808-811 839, 843, 856-879 881-905, 910-917 922-939, 941-943 945-958, 972, 974, 976

CODING OF DEATHS
ICD-10 Cancer Codes

PRIMARY SITE NAME	Major Site Group	Site Group
Mouth and Pharynx		C00 – C14
Stomach		C16
Colorectal	C18 – C21	C18 – C21
Pancreas		C25
Other Gastrointestinal Tract		C15, C17, C22-C24
.....		C26, C48
Other Gastrointestinal Tract	C15 – C17,	
.....	C22 – C26, C48	
Trachea, Bronchus & Lung		C33 – C34
Other Respiratory		C30 – C32, C37 – C39
Respiratory	C30 – C39	
Bone & Connective Tissue		C40 – C41, C47, C49
Melanoma of Skin		C43
Breast	C50	C50
Cervix Uteri		C53
Body of Uterus		C54
Other Female Genital		C51 – C52
.....		C55 – C59
Female Genital	C51 – C59	
Prostate		C61
Other Male Genital		C60, C62 – C63
Male Genital	C60 – C63	
Urinary Bladder		C67
Kidney, Other, & Unspecified Urinary Organs		C64 – C66, C68
Urinary Tract	C64 – C68	
Eye, Brain & Other Nervous System		C69 – C72
Lymphoma		C81 – C85
Leukemia		C91 – C95
Lymphoma & Leukemia	C81 – C85, C91 – C95	
All Others		C44 – C46, C73 – C80,
.....		C88, C90, C96 – C97
All Others	C00 – C14, C40 – C41, C43 – C47, C49,	
.....	C69 – C80, C88, C90, C96 – C97	

WISCONSIN POPULATION ESTIMATES BY 5-YEAR AGE GROUP AND SEX
July 1, 1999

Age	Male	Female	Total
ALL AGES	2,602,140	2,693,040	5,295,180
Under 5	171,160	163,490	334,650
5-9	188,110	179,510	367,620
10-14	208,580	196,930	405,510
15-19	233,040	203,150	416,190
20-24	176,010	172,410	348,430
25-29	160,990	164,580	325,570
30-34	182,960	185,570	368,530
35-39	220,390	216,410	436,800
40-44	221,580	216,970	438,550
45-49	191,020	193,660	384,690
50-54	156,950	160,650	317,600
55-59	121,060	126,380	247,440
60-64	100,550	105,760	206,310
65-69	84,690	96,730	181,420
70-74	77,340	93,370	170,710
75-79	60,350	83,100	143,460
80-84	39,610	66,640	106,240
85+	27,740	67,720	95,460

Source: Wisconsin Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

WISCONSIN POPULATION ESTIMATES BY COUNTY AND DHFS REGION
July 1, 1999

County	Population	County	Population
Adams	18,330	Marinette	43,130
Ashland	16,860	Marquette	13,900
Barron	43,620	Menominee	4,840
Bayfield	14,730	Milwaukee	956,710
Brown	222,130	Monroe	39,330
Buffalo	13,940	Oconto	33,850
Burnett	14,230	Oneida	35,050
Calumet	39,580	Outagamie	159,000
Chippewa	55,470	Ozaukee	81,100
Clark	32,890	Pepin	7,260
Columbia	50,130	Pierce	35,240
Crawford	16,720	Polk	37,700
Dane	415,810	Portage	67,620
Dodge	84,730	Price	16,420
Door	26,620	Racine	189,550
Douglas	42,370	Richland	17,890
Dunn	38,710	Rock	151,290
Eau Claire	92,360	Rusk	15,320
Florence	5,080	St Croix	59,520
Fond du Lac	96,960	Sauk	53,140
Forest	9,330	Sawyer	15,710
Grant	49,910	Shawano	39,200
Green	32,240	Sheboygan	112,450
Green Lake	19,620	Taylor	19,610
Iowa	22,270	Trempealeau	26,600
Iron	6,350	Vernon	26,840
Jackson	18,500	Vilas	19,680
Jefferson	74,360	Walworth	86,020
Juneau	23,590	Washburn	14,930
Kenosha	142,810	Washington	114,610
Kewaunee	20,100	Waukesha	352,650
La Crosse	106,640	Waupaca	50,320
Lafayette	16,270	Waushara	21,040
Langlade	20,640	Winnebago	155,050
Lincoln	29,030	Wood	77,940
Manitowoc	84,890		
Marathon	126,850		
		DHFS Regions	
		Northern Region	480,900
		Northeastern Region	1,142,680
		Southern Region	952,320
		Southeastern Region	1,997,810
		Western Region	721,470
		STATE TOTAL	5,295,180

Source: Wisconsin Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

2000 U.S. Standard Million Population

AGE GROUP	STANDARD POPULATION
0-4	69,135
5-9	72,533
10-14	73,032
15-19	72,169
20-24	66,478
25-29	64,529
30-34	71,044
35-39	80,762
40-44	81,851
45-49	72,118
50-54	62,716
55-59	48,454
60-64	38,793
65-69	34,264
70-74	31,773
75-79	26,999
80-84	17,842
85 and older	15,508
Total Population	1,000,000

Source: 2000 U.S. Census, Population Estimates Branch, U.S. Bureau of the Census.

1970 U.S. Standard Million Population

AGE GROUP	STANDARD POPULATION
0-4	84,416
5-9	98,204
10-14	102,304
15-19	93,845
20-24	80,561
25-29	66,320
30-34	56,249
35-39	54,656
40-44	58,958
45-49	59,622
50-54	54,643
55-59	49,077
60-64	42,403
65-69	34,406
70-74	26,789
75-79	18,871
80-84	11,241
85 and older	7,435
Total Population	1,000,000

Source: 1970 U.S. Census, Population Estimates Branch, U.S. Bureau of the Census.

Note: The bolded age group in each standard is the heaviest weighted group.

Wisconsin Department of Health and Family Services Regions



Supplemental Tables

Table A. Number of *In Situ/Invasive* Cancer Cases by Site Group and County of Residence, Wisconsin, 1999

Primary Site	Total	Adams	Ashland	Barron	Bayfield	Brown	Buffalo	Burnett	Calumet	Chippewa	Clark
Mouth and Pharynx	646	0	1	6	2	15	1	3	3	9	4
Stomach	370	0	3	3	1	13	1	1	1	5	2
Colorectal	3,316	14	9	29	13	126	12	7	17	34	21
Pancreas	578	1	1	1	1	16	2	1	3	5	5
Other Gastrointestinal Tract	777	0	4	7	6	32	3	4	3	12	9
Trachea, Bronchus & Lung	3,195	11	16	34	12	97	11	10	7	45	10
Other Respiratory	360	2	1	2	1	17	0	0	1	9	5
Bone & Connective Tissue	220	0	0	0	0	10	0	0	0	1	1
Melanoma of Skin	702	1	2	3	1	29	2	2	4	4	2
Breast	4,540	15	8	34	11	168	8	11	18	52	30
Cervix Uteri	809	1	0	3	0	32	2	4	2	3	3
Corpus Uteri	699	2	2	7	0	41	3	0	1	7	2
Other Female Genital	594	1	0	2	3	22	1	1	5	9	6
Prostate	3,745	9	9	20	11	158	15	5	19	30	25
Other Male Genital	236	0	1	3	0	11	0	1	2	3	5
Urinary Bladder	1,173	3	0	6	4	41	2	3	8	7	8
Kidney & Other Urinary	749	5	3	2	5	32	3	0	8	8	3
Eye, Brain & Other Nervous System	430	1	3	5	1	17	2	0	1	5	4
Lymph Nodes	782	2	5	4	1	40	3	5	3	5	8
Leukemia	646	2	0	3	0	14	2	0	2	5	6
All Others	1,162	2	3	11	1	38	3	5	5	11	8
All Reportable Sites	25,729	72	71	185	74	969	76	63	113	269	167

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Supplemental Tables

Table A. Number of *In Situ/Invasive Combined* Cancer Cases by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Columbia	Crawford	Dane	Dodge	Door	Douglas	Dunn	Eau Claire	Florence	Fond du Lac	Forest
Mouth and Pharynx	8	1	38	5	9	1	3	10	3	5	2
Stomach	5	0	26	5	3	2	1	4	0	5	1
Colorectal	31	17	214	45	19	22	21	66	2	74	4
Pancreas	7	1	34	10	5	3	2	4	0	12	2
Other Gastrointestinal Tract	7	4	39	15	6	5	1	6	1	16	1
Trachea, Bronchus & Lung	32	19	201	41	16	27	13	32	1	55	9
Other Respiratory	6	1	27	5	0	2	3	4	1	3	0
Bone & Connective Tissue	2	2	17	4	1	1	0	3	0	11	0
Melanoma of Skin	7	2	64	7	4	8	1	3	0	16	1
Breast	53	16	318	62	40	38	17	59	6	97	4
Cervix Uteri	5	8	82	9	3	5	1	2	0	15	4
Corpus Uteri	12	2	50	11	4	6	6	5	1	13	1
Other Female Genital	6	1	44	4	6	2	1	8	1	17	0
Prostate	52	14	251	59	40	19	14	55	4	105	8
Other Male Genital	3	1	17	2	1	0	1	3	0	7	0
Urinary Bladder	16	5	53	12	10	7	5	21	1	29	0
Kidney & Other Urinary	12	6	46	21	2	4	3	13	0	15	1
Eye, Brain & Other Nervous System	7	1	33	4	7	0	1	4	0	12	2
Lymph Nodes	9	3	57	14	9	4	1	7	0	18	1
Leukemia	11	3	53	7	4	3	1	5	1	17	2
All Others	10	4	85	16	9	12	3	19	1	27	2
All Reportable Sites	301	111	1,749	358	198	171	99	333	23	569	45

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing,
Department of Health and Family Services.

(Table continued on next page)

Supplemental Tables

Table A. Number of *In Situ/Invasive Combined* Cancer Cases by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Grant	Green	Green Lake	Iowa	Iron	Jackson	Jefferson	Juneau	Kenosha	Kewaunee	La Crosse
Mouth and Pharynx	3	2	4	4	2	3	6	1	11	4	14
Stomach	2	1	2	1	0	2	4	2	8	2	7
Colorectal	35	32	17	8	5	14	33	19	74	15	65
Pancreas	5	3	0	0	0	2	7	3	12	6	8
Other Gastrointestinal Tract	9	1	6	2	0	1	8	9	25	1	12
Trachea, Bronchus & Lung	29	16	18	12	4	13	48	28	110	9	58
Other Respiratory	3	0	2	3	0	1	5	3	7	1	5
Bone & Connective Tissue	3	2	3	1	0	0	5	2	8	1	2
Melanoma of Skin	10	2	5	2	0	1	11	1	10	2	23
Breast	34	28	14	19	1	14	60	22	117	25	102
Cervix Uteri	11	8	3	2	0	1	5	7	19	1	44
Corpus Uteri	8	8	7	2	2	1	7	5	18	4	5
Other Female Genital	6	5	4	2	1	4	7	1	15	0	16
Prostate	37	13	24	16	3	16	46	26	79	24	65
Other Male Genital	1	5	1	0	1	1	4	1	3	1	2
Urinary Bladder	11	7	4	4	2	8	18	9	21	2	28
Kidney & Other Urinary	5	6	3	2	1	5	8	3	20	4	16
Eye, Brain & Other Nervous System	6	2	2	0	1	2	8	0	12	3	13
Lymph Nodes	10	4	1	1	1	2	11	8	24	5	18
Leukemia	6	6	4	2	2	2	6	5	15	3	14
All Others	15	13	4	4	1	4	18	6	28	9	34
All Reportable Sites	249	164	128	87	27	97	325	161	636	122	551

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Table A. Number of *In Situ/Invasive Combined* Cancer Cases by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Lafayette	Langlade	Lincoln	Manitowoc	Marathon	Marinette	Marquette	Menominee	Milwaukee	Monroe	Oconto
Mouth and Pharynx	4	1	6	14	12	3	0	2	157	8	11
Stomach	2	4	8	3	4	4	0	0	70	0	6
Colorectal	12	14	20	39	83	17	12	3	527	22	25
Pancreas	3	4	4	12	14	3	0	0	114	3	3
Other Gastrointestinal Tract	2	4	6	8	14	4	2	0	165	2	9
Trachea, Bronchus & Lung	9	13	23	50	61	14	24	2	628	35	29
Other Respiratory	0	2	2	4	11	3	3	1	78	3	3
Bone & Connective Tissue	0	1	1	1	5	0	0	3	33	4	4
Melanoma of Skin	0	5	3	9	13	5	1	0	110	11	2
Breast	11	18	30	65	102	31	16	0	821	32	44
Cervix Uteri	2	4	9	9	10	3	3	1	99	6	4
Corpus Uteri	5	7	11	12	15	5	3	0	142	8	6
Other Female Genital	2	3	4	6	13	4	5	0	94	1	6
Prostate	10	13	22	56	78	39	17	0	652	20	32
Other Male Genital	0	0	4	5	7	0	0	0	37	3	1
Urinary Bladder	5	2	13	16	25	12	5	1	189	12	5
Kidney & Other Urinary	2	7	7	6	24	10	3	1	121	3	4
Eye, Brain & Other Nervous System	1	0	3	7	4	5	3	0	85	7	5
Lymph Nodes	2	3	6	14	19	5	2	0	124	7	1
Leukemia	2	3	3	10	18	4	1	0	95	10	4
All Others	5	3	11	14	21	4	2	0	202	7	11
All Reportable Sites	79	111	196	360	553	175	102	14	4,543	204	215

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing,
Department of Health and Family Services.

(Table continued on next page)

Table A. Number of *In Situ/Invasive Combined* Cancer Cases by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Oneida	Outagamie	Ozaukee	Pepin	Pierce	Polk	Portage	Price	Racine	Richland	Rock
Mouth and Pharynx	4	23	11	0	1	0	8	2	28	2	19
Stomach	1	14	7	0	0	3	3	0	19	1	6
Colorectal	29	83	58	10	18	11	35	15	139	5	98
Pancreas	4	20	13	0	0	2	5	2	20	2	22
Other Gastrointestinal Tract	11	20	9	2	4	8	7	5	29	3	23
Trachea, Bronchus & Lung	33	95	30	5	6	24	28	8	127	9	115
Other Respiratory	4	15	3	0	1	0	2	0	11	1	13
Bone & Connective Tissue	2	7	3	1	2	0	1	1	11	1	7
Melanoma of Skin	8	23	8	1	1	1	3	4	24	4	18
Breast	47	139	78	5	17	12	49	9	174	11	125
Cervix Uteri	9	44	7	0	2	8	1	2	29	3	55
Corpus Uteri	2	15	6	2	0	4	5	1	13	3	26
Other Female Genital	8	26	9	0	1	3	10	1	14	4	21
Prostate	28	100	79	5	5	15	35	11	136	13	104
Other Male Genital	0	5	7	0	1	2	2	3	7	2	5
Urinary Bladder	14	46	15	1	3	10	10	2	50	2	32
Kidney & Other Urinary	6	26	18	1	1	1	11	0	13	3	25
Eye, Brain & Other Nervous System	0	16	9	0	0	1	2	0	15	1	12
Lymph Nodes	10	24	11	0	1	8	11	3	30	1	19
Leukemia	5	25	9	1	4	2	11	0	22	3	20
All Others	9	33	19	1	4	5	9	4	42	4	38
All Reportable Sites	234	799	409	35	72	120	248	73	953	78	803

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing,
Department of Health and Family Services.

(Table continued on next page)

Table A. Number of *In Situ/Invasive Combined* Cancer Cases by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Rusk	St. Croix	Sauk	Sawyer	Shawano	Sheboygan	Taylor	Trempealeau	Vernon	Vilas	Walworth
Mouth and Pharynx	0	0	8	3	7	7	1	2	4	5	10
Stomach	1	1	3	4	1	10	2	0	1	2	10
Colorectal	12	28	49	16	30	94	10	34	39	17	50
Pancreas	0	4	8	3	8	18	0	6	0	1	13
Other Gastrointestinal Tract	3	4	11	6	7	14	6	3	3	2	10
Trachea, Bronchus & Lung	5	12	29	12	28	74	14	12	21	27	62
Other Respiratory	1	1	1	4	1	8	1	0	3	1	6
Bone & Connective Tissue	2	2	1	0	4	7	0	3	1	1	5
Melanoma of Skin	1	2	7	1	3	23	3	5	4	2	11
Breast	19	24	42	17	37	112	14	29	31	38	68
Cervix Uteri	1	9	8	4	6	35	1	5	8	6	14
Corpus Uteri	3	5	0	1	11	12	4	9	6	6	10
Other Female Genital	4	8	10	3	5	19	1	6	3	6	9
Prostate	11	8	35	17	35	111	17	20	29	21	60
Other Male Genital	1	2	0	0	2	11	1	0	1	0	5
Urinary Bladder	9	4	8	4	16	29	3	5	14	13	32
Kidney & Other Urinary	2	5	8	3	6	14	3	3	9	1	9
Eye, Brain & Other Nervous System	0	2	5	1	4	8	1	0	1	0	7
Lymph Nodes	3	6	6	5	11	12	2	2	3	3	11
Leukemia	3	5	2	3	6	25	7	2	9	8	19
All Others	4	8	11	1	5	28	5	10	12	7	23
All Reportable Sites	85	140	252	108	233	671	96	156	202	167	444

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing,
Department of Health and Family Services.

(Table continued on next page)

Table A. Number of *In Situ/Invasive Combined* Cancer Cases by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Washburn	Washington	Waukesha	Waupaca	Waushara	Winnebago	Wood
Mouth and Pharynx	5	15	36	5	7	20	12
Stomach	1	4	34	3	3	16	6
Colorectal	16	85	215	42	23	112	55
Pancreas	3	9	58	4	2	23	6
Other Gastrointestinal Tract	3	12	58	5	5	16	17
Trachea, Bronchus & Lung	19	61	197	33	21	102	54
Other Respiratory	1	3	22	5	2	13	7
Bone & Connective Tissue	0	1	14	4	1	4	2
Melanoma of Skin	1	9	87	8	3	26	22
Breast	13	114	365	52	19	132	77
Cervix Uteri	0	7	24	8	3	58	17
Corpus Uteri	2	7	42	12	4	16	15
Other Female Genital	3	9	29	5	2	21	15
Prostate	10	80	310	45	14	109	72
Other Male Genital	0	6	19	1	0	8	7
Urinary Bladder	6	20	91	11	10	50	23
Kidney & Other Urinary	4	19	57	10	0	24	14
Eye, Brain & Other Nervous System	0	7	29	4	2	15	9
Lymph Nodes	1	17	65	7	5	26	12
Leukemia	3	15	35	8	1	23	14
All Others	5	24	86	14	5	41	14
All Reportable Sites	96	524	1,873	286	132	855	470

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Note: See Technical Notes on pages 53-55 for the individual sites in each site group.

Table B. Number of *In Situ/Invasive Combined* Cancer Cases for Large Cities and their Surrounding Counties by Major Site Group, Wisconsin, 1999

COUNTY Major City	MAJOR SITE GROUP									Total
	Colo- Rectal	Other GI	Respiratory	Breast	Female Genital	Male Genital	Urinary Tract	Leukemia & Lymph Nodes	Other	
BROWN	126	76	114	168	95	169	73	54	94	969
Green Bay	99	55	93	146	73	130	60	38	66	760
Rest of County	27	21	21	22	22	39	13	16	28	209
DANE	214	137	228	318	176	268	99	110	199	1,749
Madison	141	84	158	220	123	170	61	71	133	1,161
Rest of County	73	53	70	98	53	98	38	39	66	588
EAU CLAIRE	66	24	36	59	15	58	34	12	29	333
Eau Claire	51	20	31	46	11	42	25	11	20	257
Rest of County	15	4	5	13	4	16	9	1	9	76
KENOSHA	74	56	117	117	52	82	41	39	58	636
Kenosha	57	44	85	89	34	66	31	30	40	476
Rest of County	17	12	32	28	18	16	10	9	18	160
LA CROSSE	65	41	63	102	65	67	44	32	72	551
La Crosse	51	35	46	70	38	42	32	23	58	385
Rest of County	14	6	17	32	27	25	12	9	24	166
MILWAUKEE	527	506	706	821	335	689	310	219	430	4,543
Milwaukee	398	370	518	601	255	525	210	165	280	3,322
Wauwatosa	32	27	35	54	17	35	8	17	35	260
West Allis	33	41	55	76	20	54	35	12	39	365
Rest of County	64	68	98	90	43	75	57	25	76	596
OUTAGAMIE	83	77	110	139	85	105	72	49	79	799
Appleton	34	46	61	72	52	50	43	33	47	438
Rest of County	49	31	49	67	33	55	29	16	32	361
RACINE	139	96	138	174	56	143	63	52	92	953
Racine	100	61	94	122	34	107	47	37	66	668
Rest of County	39	35	44	52	22	36	16	15	26	285
ROCK	98	70	128	125	102	109	57	39	75	803
Janesville	55	37	64	63	55	59	26	20	31	410
Rest of County	43	33	64	62	47	50	31	19	44	393
SHEBOYGAN	94	49	82	112	66	122	43	37	66	671
Sheboygan	51	35	50	61	32	74	24	19	32	378
Rest of County	43	14	32	51	34	48	19	18	34	293
WAUKESHA	215	186	219	365	95	329	148	100	216	1,873
Waukesha	73	55	66	107	27	92	55	32	68	575
Rest of County	142	131	153	258	68	237	93	68	148	1,298
WINNEBAGO	112	75	115	132	95	117	74	49	86	855
Oshkosh	73	41	66	62	53	59	40	24	45	463
Rest of County	39	34	49	70	42	58	34	25	41	392

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: See Technical Notes on pages 53-55 for individual sites included in each major site group, and page 47 for how city residence was determined. Cities selected for this table are those with an estimated population of at least 50,000. In this table, the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx."

Table C. Number of Cancer Deaths by Site Group and County of Residence, Wisconsin, 1999

Primary Site	Total	Adams	Ashland	Barron	Bayfield	Brown	Buffalo	Burnett	Calumet	Chippewa	Clark
Mouth and Pharynx	142	0	1	1	0	4	2	2	1	1	1
Stomach	203	0	2	4	0	11	1	1	1	4	0
Colorectal	1,169	8	2	6	4	25	4	3	4	12	6
Pancreas	576	2	1	2	0	20	4	1	5	5	2
Other Gastrointestinal Tract	625	5	3	3	3	26	1	3	5	8	2
Trachea, Bronchus & Lung	2,642	22	9	30	14	85	12	17	15	36	6
Other Respiratory	94	0	0	2	1	2	0	1	0	1	0
Bone & Connective Tissue	108	1	0	2	0	3	0	0	2	1	0
Melanoma of Skin	142	0	1	2	0	5	0	0	2	2	1
Breast	834	5	3	5	5	33	1	4	8	15	8
Cervix Uteri	67	0	0	1	0	5	0	0	0	1	0
Corpus Uteri	73	0	1	0	2	4	0	0	0	0	0
Other Female Genital	359	1	0	3	2	18	0	0	4	7	1
Prostate	681	1	2	9	3	19	5	3	5	4	5
Other Male Genital	13	0	0	1	0	1	0	0	0	0	0
Urinary Bladder	241	3	0	3	1	13	1	1	0	1	4
Kidney & Other Urinary	262	0	3	0	3	8	0	0	3	1	1
Eye, Brain & Other Nervous System	257	2	0	5	0	11	2	0	1	3	2
Lymph Nodes	541	2	1	8	0	25	1	4	3	6	5
Leukemia	469	1	0	7	0	14	2	0	4	4	4
All Others	1,233	4	2	13	8	40	4	9	10	11	6
Total Cancer Deaths	10,731	57	31	107	46	372	40	49	73	123	54

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Table C. Number of Cancer Deaths by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Columbia	Crawford	Dane	Dodge	Door	Douglas	Dunn	Eau Claire	Florence	Fond du Lac	Forest
Mouth and Pharynx	2	1	4	5	1	3	1	2	0	4	0
Stomach	3	0	9	6	0	3	1	1	0	3	0
Colorectal	10	1	68	25	9	20	4	30	1	30	3
Pancreas	6	3	35	13	2	7	1	6	0	10	1
Other Gastrointestinal Tract	7	1	29	12	4	5	1	6	1	10	2
Trachea, Bronchus & Lung	24	12	135	35	12	27	14	31	5	44	11
Other Respiratory	1	1	5	2	0	3	0	0	0	2	1
Bone & Connective Tissue	2	0	8	0	0	0	0	2	0	6	0
Melanoma of Skin	2	0	8	2	2	0	1	0	0	5	0
Breast	12	6	50	10	4	10	5	12	2	16	1
Cervix Uteri	0	0	4	0	2	2	0	0	0	1	0
Corpus Uteri	3	0	3	1	1	0	2	1	0	2	0
Other Female Genital	4	0	22	7	3	9	3	5	3	3	1
Prostate	6	3	39	12	6	9	6	14	0	14	2
Other Male Genital	0	0	3	0	0	0	0	0	0	0	0
Urinary Bladder	1	2	17	3	0	3	3	5	1	7	0
Kidney & Other Urinary	3	0	6	6	0	3	2	7	0	2	0
Eye, Brain & Other Nervous System	4	0	20	4	2	3	1	3	0	6	1
Lymph Nodes	9	2	38	12	1	3	0	5	0	10	2
Leukemia	8	2	35	11	2	3	0	9	0	9	0
All Others	22	7	71	15	16	15	8	23	1	18	3
Total Cancer Deaths	129	41	609	181	67	128	53	162	14	202	28

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Table C. Number of Cancer Deaths by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Grant	Green	Green Lake	Iowa	Iron	Jackson	Jefferson	Juneau	Kenosha	Kewaunee	La Crosse
Mouth and Pharynx	1	0	1	3	1	0	1	0	3	3	3
Stomach	0	0	4	1	0	2	3	3	8	4	4
Colorectal	10	12	6	7	4	7	18	12	33	3	20
Pancreas	7	6	1	2	0	3	6	1	14	6	9
Other Gastrointestinal Tract	6	4	5	0	1	1	5	4	16	1	11
Trachea, Bronchus & Lung	21	11	18	8	3	8	41	28	89	6	53
Other Respiratory	2	0	0	0	1	0	1	0	3	0	1
Bone & Connective Tissue	2	2	0	0	0	0	1	1	2	1	4
Melanoma of Skin	1	0	1	0	0	1	3	0	4	2	3
Breast	5	9	4	7	0	3	11	6	17	7	15
Cervix Uteri	0	1	0	0	0	0	2	1	4	0	2
Corpus Uteri	0	1	1	0	0	0	2	1	0	0	0
Other Female Genital	5	0	1	4	0	3	7	2	4	1	7
Prostate	12	5	7	4	0	3	6	10	13	3	11
Other Male Genital	1	0	0	0	1	0	0	0	0	0	0
Urinary Bladder	4	2	0	2	0	0	3	2	0	0	4
Kidney & Other Urinary	4	3	0	1	0	2	5	2	8	1	3
Eye, Brain & Other Nervous System	6	3	1	1	0	2	2	0	5	0	8
Lymph Nodes	5	2	1	1	1	3	8	6	17	5	7
Leukemia	5	1	1	3	1	2	4	3	11	3	18
All Others	10	4	8	5	2	4	17	8	21	6	22
Total Cancer Deaths	107	66	60	49	15	44	146	90	272	52	205

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Table C. Number of Cancer Deaths by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Lafayette	Langlade	Lincoln	Manitowoc	Marathon	Marinette	Marquette	Menominee	Milwaukee	Monroe	Oconto
Mouth and Pharynx	2	2	2	3	0	0	0	0	24	0	5
Stomach	0	1	2	1	2	1	2	0	43	0	1
Colorectal	6	8	4	18	21	9	4	2	208	4	11
Pancreas	4	3	5	10	16	4	2	0	96	4	3
Other Gastrointestinal Tract	2	2	7	13	15	7	1	0	136	3	3
Trachea, Bronchus & Lung	7	7	19	48	50	31	10	1	542	16	33
Other Respiratory	0	0	0	1	3	2	1	0	25	3	1
Bone & Connective Tissue	0	0	0	0	1	2	1	0	18	2	2
Melanoma of Skin	1	1	1	0	5	4	1	0	20	0	2
Breast	2	3	5	20	21	5	4	0	159	3	7
Cervix Uteri	0	1	0	1	0	0	0	1	8	0	1
Corpus Uteri	0	0	0	2	1	0	0	0	18	0	3
Other Female Genital	1	0	5	6	4	1	2	0	63	3	2
Prostate	0	4	5	15	15	12	3	0	106	7	5
Other Male Genital	0	0	0	1	1	0	0	0	2	0	0
Urinary Bladder	2	3	1	3	5	1	0	0	46	3	3
Kidney & Other Urinary	2	1	1	4	11	5	0	1	53	1	2
Eye, Brain & Other Nervous System	2	2	0	4	2	5	3	0	46	2	2
Lymph Nodes	1	5	3	14	14	10	1	0	90	7	5
Leukemia	1	1	4	7	9	5	2	0	84	5	2
All Others	7	7	9	25	29	11	5	0	213	9	12
Total Cancer Deaths	40	51	73	196	225	115	42	5	2,000	72	105

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Table C. Number of Cancer Deaths by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Oneida	Outagamie	Ozaukee	Pepin	Pierce	Polk	Portage	Price	Racine	Richland	Rock
Mouth and Pharynx	0	2	4	1	0	1	5	0	6	0	4
Stomach	2	5	5	0	0	1	1	1	13	0	3
Colorectal	13	30	22	2	6	9	18	4	40	7	33
Pancreas	4	13	12	0	4	7	7	2	19	2	16
Other Gastrointestinal Tract	9	13	10	1	4	4	10	3	22	6	13
Trachea, Bronchus & Lung	21	68	37	3	10	19	28	11	99	9	79
Other Respiratory	0	0	1	0	1	0	0	0	2	1	2
Bone & Connective Tissue	0	1	0	1	0	0	0	0	0	0	5
Melanoma of Skin	4	5	3	0	1	1	0	0	5	0	3
Breast	6	14	13	1	4	5	12	2	25	0	19
Cervix Uteri	0	4	2	0	0	2	0	0	1	1	1
Corpus Uteri	0	1	1	1	0	0	1	0	2	1	1
Other Female Genital	2	15	2	0	2	2	5	0	12	1	8
Prostate	4	21	8	3	5	4	9	5	18	2	15
Other Male Genital	0	0	0	0	0	0	0	0	0	0	0
Urinary Bladder	2	8	3	0	0	2	1	0	13	2	4
Kidney & Other Urinary	4	5	6	0	1	1	4	2	4	0	8
Eye, Brain & Other Nervous System	1	8	3	1	0	2	4	1	6	0	3
Lymph Nodes	2	13	13	0	2	3	4	1	20	2	14
Leukemia	4	11	10	0	4	4	4	2	11	3	8
All Others	11	34	18	3	6	11	13	2	58	8	28
Total Cancer Deaths	89	271	173	17	50	78	126	36	376	45	267

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Table C. Number of Cancer Deaths by Site Group and County of Residence, Wisconsin, 1999 (Continued)

Primary Site	Rusk	St. Croix	Sauk	Sawyer	Shawano	Sheboygan	Taylor	Trempealeau	Vernon	Vilas	Walworth
Mouth and Pharynx	0	1	1	1	1	4	1	0	1	0	3
Stomach	1	1	0	0	3	7	0	1	0	3	2
Colorectal	3	9	9	6	10	29	5	12	14	6	26
Pancreas	2	4	4	2	3	14	3	6	6	1	12
Other Gastrointestinal Tract	3	1	6	2	3	8	4	5	1	1	11
Trachea, Bronchus & Lung	9	19	20	13	27	48	10	9	14	23	41
Other Respiratory	0	0	0	0	0	2	1	0	1	0	0
Bone & Connective Tissue	1	2	1	0	2	4	0	2	0	2	2
Melanoma of Skin	0	1	2	0	0	3	0	1	0	0	2
Breast	3	8	9	2	6	24	1	1	8	5	15
Cervix Uteri	0	1	0	0	3	1	0	0	0	0	2
Corpus Uteri	0	0	2	0	1	0	0	1	0	0	2
Other Female Genital	3	7	3	1	5	11	0	4	0	1	11
Prostate	5	6	13	1	9	9	3	6	6	3	7
Other Male Genital	0	0	0	0	0	0	0	0	0	0	1
Urinary Bladder	2	1	0	1	2	1	3	3	2	1	3
Kidney & Other Urinary	2	4	1	1	2	5	1	0	4	1	5
Eye, Brain & Other Nervous System	0	2	0	1	1	8	1	0	0	3	5
Lymph Nodes	3	6	3	4	8	6	1	3	4	1	7
Leukemia	2	4	7	0	4	8	2	2	3	2	9
All Others	4	11	15	1	10	27	6	11	11	10	14
Total Cancer Deaths	43	88	96	36	100	219	42	67	75	63	180

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

(Table continued on next page)

Table C. Number of Cancer Deaths by Site Group and County of Residence, Wisconsin, 1999

Primary Site	Washburn	Washington	Waukesha	Waupaca	Wausara	Winnebago	Wood
Mouth and Pharynx	1	2	6	0	0	4	3
Stomach	1	2	12	0	0	5	2
Colorectal	11	17	70	11	4	30	11
Pancreas	2	12	56	5	2	21	7
Other Gastrointestinal Tract	2	10	41	7	4	27	14
Trachea, Bronchus & Lung	14	46	159	35	15	71	39
Other Respiratory	1	1	6	3	2	1	3
Bone & Connective Tissue	0	2	8	4	1	2	2
Melanoma of Skin	0	5	13	2	2	5	1
Breast	1	12	55	10	6	25	14
Cervix Uteri	0	1	4	2	0	3	1
Corpus Uteri	0	0	7	1	1	1	0
Other Female Genital	3	6	17	2	1	12	6
Prostate	4	18	38	8	5	16	17
Other Male Genital	0	0	1	0	0	0	0
Urinary Bladder	2	7	18	2	2	3	0
Kidney & Other Urinary	2	6	16	3	3	8	5
Eye, Brain & Other Nervous System	1	4	20	2	1	12	1
Lymph Nodes	4	8	25	12	3	16	10
Leukemia	5	9	32	4	2	18	8
All Others	5	14	79	21	9	39	14
Total Cancer Deaths	59	182	683	134	63	319	158

Source: 1999 Wisconsin resident death file, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Supplemental Tables

Table D. Number and Percent of *In Situ/Invasive Combined* Cancer Cases by Individual Primary Site and Sex, Wisconsin, 1999

PRIMARY SITE (organ of origin)	MALE		FEMALE		TOTAL	
	Number	%	Number	%	Number	%
Lip	31	0.2	16	0.1	47	0.2
Tongue	103	0.8	46	0.6	149	0.6
Major Salivary Glands	37	0.3	34	0.3	71	0.3
Gum	13	0.1	16	0.1	29	0.1
Floor of Mouth	37	0.3	12	0.1	49	0.2
Other & Unspecified Parts of Mouth	44	0.3	22	0.2	66	0.3
Oropharynx	82	0.6	29	0.2	111	0.4
Nasopharynx	19	0.1	12	0.1	31	0.1
Hypopharynx	63	0.5	13	0.1	76	0.3
Other Sites in Lip, Oral Cavity & Pharynx	11	0.1	6	0.0	17	0.1
Esophagus	227	1.8	72	0.6	299	1.2
Stomach	244	1.9	126	1.0	370	1.4
Small Intestine	63	0.5	40	0.3	103	0.4
Colon	1,216	9.6	1,161	8.9	2,377	9.2
Rectum, Rectosigmoid Junction & Anus	554	4.4	385	3.0	939	3.6
Liver & Intrahepatic Bile Duct	132	0.4	63	0.5	195	0.8
Gallbladder & Extrahepatic Bile Duct	46	2.2	89	0.7	135	0.5
Pancreas	278	0.1	300	2.3	578	2.2
Retroperitoneum & Peritoneum	14	0.8	22	0.2	36	0.1
Other Within Digestive Organs & Peritoneum	3	0.0	6	0.0	9	0.0
Nasal Cavities & Sinuses, Internal Ear	24	0.2	27	0.2	51	0.2
Larynx	177	1.4	57	0.4	234	0.9
Trachea, Bronchus & Lung	1,880	14.8	1,315	10.1	3,195	12.4
Pleura	38	0.3	9	0.1	47	0.2
Thymus, Heart & Mediastinum	15	0.1	12	0.1	27	0.1
Other Respiratory & Intrathoracic Sites	0	0.0	1	0.0	1	0.0
Hematopoietic & Reticuloendothelial Systems, Except Leukemia	156	1.2	141	1.1	297	1.2
Bone, Joints & Articular Cartilage	34	0.3	29	0.2	63	0.2
Connective, Subcutaneous & Other Soft Tissue	74	0.6	83	0.6	157	0.6
Melanoma of Skin	395	3.1	307	2.4	702	2.7
Breast	39	0.3	4,501	34.6	4,540	17.6
Uterus, NOS	-	-	35	0.3	35	0.1
Cervix Uteri	-	-	809	6.2	809	3.1
Placenta	-	-	3	0.0	3	0.0
Corpus Uteri	-	-	699	5.4	699	2.7
Ovary, Fallopian Tube & Broad Ligament	-	-	400	3.1	400	1.6
Other & Unspecified Female Genital Organs	-	-	156	1.2	156	0.6
Prostate	3,745	29.4	-	-	3,745	14.6
Testis	204	1.6	-	-	204	0.8
Penis & Other Male Genital Organs	32	0.3	-	-	32	0.1
Urinary Bladder	860	6.8	313	2.4	1,173	4.6
Kidney & Other Urinary Organs	471	3.7	278	2.1	749	2.9
Eye & Lacrimal Gland	26	0.2	38	0.3	64	0.2
Brain	184	1.4	165	1.3	349	1.4
Other & Unspecified Parts of Nervous System	6	0.0	11	0.1	17	0.1
Thyroid Gland	77	0.6	232	1.8	309	1.2
Other Endocrine Glands	7	0.1	2	0.0	9	0.0
Lymph Nodes	347	2.7	276	2.1	623	2.4
Hodgkin's Disease	87	0.7	72	0.6	159	0.6
Lymphoid Leukemia	155	1.2	124	1.0	279	1.1
Myeloid Leukemia	157	1.2	127	1.0	284	1.1
Other Leukemia	47	0.4	36	0.3	83	0.3
Other & Ill-defined Sites	66	0.5	51	0.4	117	0.5
Unknown Primary Site	203	1.6	227	1.7	430	1.7
All Reportable Sites	12,723	100.0	13,006	100.0	25,729	100.0

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Table E. Number and Rates of *In Situ*/Invasive Combined Cancer Cases by Site Group and Sex, Rates Age-Adjusted to the 1970 and 2000 Standard Populations, Wisconsin, 1999

PRIMARY SITE	MALE			FEMALE			TOTAL		
	Number	Rate*	Rate**	Number	Rate*	Rate**	Number	Rate*	Rate**
Mouth & Pharynx	440	15.6	17.8	206	6.1	6.9	646	10.5	11.9
Stomach	244	8.5	10.3	126	3.1	3.9	370	5.5	6.7
Colorectal	1,870	61.5	74.1	1,546	39.6	48.6	3,316	49.5	59.8
Pancreas	278	9.7	11.5	300	7.6	9.4	578	8.6	10.4
Other Gastrointestinal Tract	485	16.9	20.1	292	7.7	9.3	777	11.9	14.1
Trachea, Bronchus & Lung	1,880	66.5	77.8	1,315	39.0	44.2	3,195	51.0	58.5
Other Respiratory	254	9.1	10.4	106	3.1	3.6	360	5.9	6.6
Bone & Connective Tissue	108	3.9	4.3	112	3.5	3.8	220	3.7	4.1
Melanoma of Skin	395	13.5	15.9	307	9.4	10.9	702	11.2	13.0
Breast	39	1.3	1.6	4,501	133.7	154.9	4,540	71.4	83.6
Cervix Uteri	-	-	-	809	27.5	31.1	809	13.9	15.7
Corpus Uteri	-	-	-	699	21.5	24.2	699	11.4	13.0
Other Female Genital	-	-	-	594	17.5	20.3	594	9.3	10.9
Prostate	3,745	134.8	155.3	-	-	-	3,745	61.0	68.7
Other Male Genital	236	8.0	9.3	-	-	-	236	3.9	4.5
Urinary Bladder	860	29.5	36.4	313	8.4	10.0	1,173	17.7	21.2
Kidney & Other Urinary	471	16.5	19.4	278	8.1	9.3	749	11.9	13.7
Eye, Brain & Other Nervous System	216	7.8	8.6	214	6.9	7.5	430	7.3	8.0
Lymph Nodes	434	15.1	17.7	348	10.2	11.8	782	12.4	14.4
Leukemia	359	12.8	14.8	287	8.2	9.4	646	10.3	11.8
All Others	509	17.6	21.2	653	18.4	21.9	1,162	17.8	21.2
All Reportable Sites	12,723	448.5	526.6	13,006	379.6	441.0	25,729	406.0	471.9

Source: Wisconsin Cancer Reporting System, Bureau of Health Information, Division of Health Care Financing, Department of Health and Family Services.

Notes: Male rates are cases per 100,000 male residents, female rates are cases per 100,000 female residents, and total rates are cases per 100,000 residents.

Site groups are listed in ICD-O2 numerical code order. See Technical Notes at the end of this report for the individual sites included in each site group.

* Age-adjusted to the 1970 U.S. standard population.

** Age-adjusted to the 2000 U.S. standard population.

In this table, rates for cancers with a higher percentage of *in situ* diagnoses (breast, cervical and melanoma of the skin) vary the most from rates shown in Table 2.

